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ABSTRACT

This textbook of 24 chapters provides administrators and students with information on the role, activities, and responsibilities of the school business administrator. The independently authored chapters are titled as follows: (1) "Introduction to School Business Management" (F. Mike Miles); (2) "Legal Context of the Public School District" (Paul W. Thurston); (3) "Theories of Modern Management" (W. Hal Knight); (4) "Taxation for Education" (Thomas H. Jones); (5) "Educational Accounting Procedures" (Sam B. Tidwell); (6) "Educational Budget Preparation: Fiscal and Political Considerations" (Ellen Kehoe); (7) "Quantitative Decision Making" (Grover H. Baldwin); (8) "Management Information Systems in Educational Organizations" (Frederick L. Dembowski); (9) "School District Financial Management and Banking" (Frederick L. Dembowski and Robert D. Davey); (10) "Planning and the School Business Office" (A. P. Johnston and Kenneth Hood); (11) "The Personnel Function: Practitioners, Practices and Participants" (Donald L. Robson); (12) "Legal and Managerial Aspects of Collective Negotiations" (Thomas N. Jones and Grover H. Baldwin); (13) "Risk Management" (L. Nathan Randal); (14) "Foodservices at School" (Dorothy Van Egmond-Pannell); (15) "Public School Transportation: State Aid and Current Issues" (Patricia Anthony and Deborah Inman); (16) "School Desegregation and Student Busing" (Richard A. King); (17) "Legal Liabilities of Administrators" (Julie Underwood); (18) "School District Purchasing" (Joseph L. Natale); (19) "Fiscal Equity Challenges" (Richard G. Salmon, Mary Jane Connelly, and M. David Alexander); (20) "Reduction in Force" (R. Craig Wood); (21) "Capital Outlay and Bonding" (R. Craig Wood); (22) "School Closings" (R. Craig Wood and Wayne M. Worner); (23) "Facility Planning and Management" (Glen I. Earthman); and (24) "The Political Economy of Education Finance: Legacies of Largess Lumbering toward an Uncertain Future" (Maureen W. McClure). Each chapter provides endnotes citing the reference sources used. The book also contains a preface by the executive editor, brief profiles of the editor and the authors, and a three-part index to personal names, subjects, and court cases referred to in the text. (PGD)

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Principles of School Business Management

Association of School Business Officials International

R. Craig Wood, Ed.D
Editor

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703/478-0405

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4224 South 133rd Street
Omaha, NE 68137
402/330-2770

1985–87

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842 North Mockingbird, Box 981
Abilene, TX 79604
915/677-1444

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803/736-3774

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Smith System Manufacturing Co.
P.O. Box 64515
St. Paul, MN 55164
612/636-3560

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Preface

This text is designed to serve as a basic reference for practicing school business administrators and as a guide for graduate classes in school business management. Hence, the text is a reflection of these dual purposes and offers a comprehensive overview of school business management. The text is designed to be used in sections as each chapter may be viewed in its own right. As each task area varies due to statutory and regulatory requirements, the practitioner will be able to accept what is applicable to his or her own situation. By design, the text is not a quick, how-to-guide in becoming a school business administrator. The text, rather, reflects a view that school business administration is an area that is large and diverse. Unlike many texts in the field, this book offers the reader a detailed display of the task areas.

The book was an ambitious undertaking, as school business management is a broad, complex and dynamic area of educational administration. The editor, as well as the authors, embrace the concept that school business management is not a narrow discipline. The contemporary school business administrator must be knowledgeable about a wide variety of areas. The text has taken an approach that is far more realistic and reflective of modern practice, that is, the school business administrator's acting and being responsible for a wide variety of activities designed to organize and maintain the school district in order to ensure enhancement of educational opportunity. Thus, practitioners may find certain chapters to be of primary interest.

The authors reflected in the various chapters are experts engaged in research, teaching, practice and consulting in specific areas applicable to school business management. This diversity in background is reflected in the text's interweaving of research and practice.

The editor wishes to thank many individuals responsible for assistance and encouragement throughout this project. First, the editor wishes to thank the Association of School Business Officials International and the Board of Directors for their support, vision and willingness to undertake such a project and specifically, Ronald A. Allen, the Executive Director of ASBO, who was highly supportive of the concept. Additionally, Judy Touchton, director of communications and marketing and editor and publisher of *School Business Affairs*, offered untold hours of encouragement, help and diligence in seeing the project to its completion along with assistance from Barbara Libengood. The editor also wishes to thank the authors of each of the chapters who volunteered their expertise and time. Special thanks must also be extended to Joseph T. Crawford, administrator with the Crete, Illinois, Public Schools for his assistance in rereading and offering invaluable advice on the manuscript. Additionally, the membership of the Association of School Business Officials International must be thanked for having the most outstanding, viable and professional organization dedicated to the excellence of educational administration.

West Lafayette, Indiana

R. Craig Wood

Executive Editor

R. Craig Wood is an associate professor of educational administration at Purdue University in West Lafayette, Indiana. He teaches graduate courses in the areas of public school finance, school business management, collective bargaining and school law. Dr. Wood had served as a school district business manager as well as the assistant superintendent for business and plant planning for school districts in Wisconsin and Connecticut before his appointment at Purdue. Prior to his administrative experience he served as a public classroom teacher in North Carolina. Dr. Wood has presented his research at the annual meeting of the Association of School Business Officials International, as well as the annual meetings of the American Association of School Administrators, American Education Finance Association, American Educational Research Association, National Conference of Professors of Educational Administration and the National Organization on Legal Problems of Education. Additionally, he has contributed numerous chapters for books and his research has appeared in such journals as *Government Union Review, Journal of Collective Negotiations in the Public Sector, Journal of Education Finance, NOLPE School Law Journal and Planning and Changing.* He is a contributing editor to *School Business Affairs* with the Legal Aspects column and presently serves as chairman of the ASBO School Finance Research Committee.

Authors

M. David Alexander is professor of educational administration at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. He teaches graduate courses in education finance and law. Dr. Alexander has published numerous books and articles on education finance and law issues. His recent co-authored publications include *American Public School Law* and *The Law of Schools, Students and Teachers* published by the West Publishing Company. Dr. Alexander has served on the boards of professional organizations, has presented papers at many national, regional and state conventions, including the ASBO annual meeting, and served as consultant on various projects. He has served as a member of the local school board as well as a former President of the Virginia Association of School Business Officials.

Patricia G. Anthony is associate editor of the *Journal of Education Finance* and an adjunct assistant professor for the University of Florida and the University of North Florida where she has taught graduate classes in school law and special education, respectively. Prior to earning her doctorate at the University of Florida, she taught regular and handicapped students in Michigan and Florida. Additionally, she has served as a Title I curriculum specialist. Dr. Anthony has made presentations in the areas of special education curriculum and law as well as the financing of school transportation.

Grover H. Baldwin is currently an associate professor of Educational Administration at Indiana State University, Terre Haute, Indiana, where his major responsibilities consist of teaching collective negotiations and school law. Prior to his present appointment he was an associate professor of educational administration at Pittsburg State University in Kansas. Dr. Baldwin has served as a teacher, building principal and curriculum planning specialist. He has negotiated for both teachers and board/administrative teams and is involved in the application of long range/strategic planning and management principles in non-profit organizations.

Mary Jane Connelly is assistant professor of educational administration at Glassboro State College in New Jersey where she teaches graduate courses in school finance and law. Dr. Connelly was a fellow at the Woodrow Wilson School of International and Public Affairs, Princeton University, where she studied administrative law and public policy. She has presented her research at the ASBO annual meeting. Dr. Connelly and Dr. M. David Alexander have coedited a NOLPE publication entitled "The Law and the School Principal."

Robert D. Davey is the division head of Chemical Bank's Capital Region Government Services Division. He is responsible for servicing New York school district's cash management programs. Previously, he served as a business manager for school districts in New York. He has conducted a number of seminars on various municipal finance topics for Chemical Bank and the New York Association of School Business Officials.

Frederick L. Dembowski is an associate professor of educational administration at the State University of New York at Albany. He teaches courses in educational business management and finance. His areas of specialty include school district cash management and the use of microcomputers in school business management operations. He has authored numerous publications in these areas. He is presently serving as a contributing editor to *School Business Affairs*, and presented his research at the ASBO annual meeting. Additionally, Dr. Dembowski has presented a large number of workshops and in-service training courses on these topics.

Glen I. Earthman is currently associate professor at Virginia Polytechnic Institute and State University. Dr. Earthman has spent many years in public education as a teacher, principal and central office administrator. Prior to his employment at Virginia Tech, he was the chief school planner and Executive Director of School Facility Planning for the Philadelphia Public Schools. He has considerable experience in planning new facilities in capital improvement programs for school districts throughout the country. He has written extensively in the field of school facility planning and has served as Editor for the *Council of Educational Facilities Planners Journal*.

Kenneth W. Hood is Associate Dean of the College of Education and Social Services and associate professor of administration and planning at the University of Vermont. Dr. Hood has had over twenty years of public school teaching and administrative experience in Massachusetts and Vermont, seven years of which he was a superintendent of schools. He was Vice President of the Community College of Vermont and also served the Vermont State College system, having broad budgetary and internal review responsibilities.

Deborah Inman is an assistant professor within the Department of Organizational and Administrative Studies at New York University. Prior to her present appointment Dr. Inman was an assistant professor at Oklahoma State University. She received her doctorate from Teachers College, Columbia University. Additionally, she has written in the areas of education finance, including *School Business Affairs*, and has presented her research at national conferences.

A. P. Johnston is associate professor of educational administration and planning with the College of Education and Social Services at the University of Vermont. He teaches and is involved in state policy development. He has served as a consultant to numerous school districts throughout the country in local district planning efforts. He received his doctorate from the University of Alabama and has successfully served as a public school teacher and administrator in Alabama, Columbia, S.A., Texas, and Virginia.

Thomas H. Jones is professor in the Department of Educational Administration at the University of Connecticut at Storrs. Dr. Jones' specialties are educational policy, and the politics and financing of public education. He teaches courses in public school finance, business administration of educational organizations and research in educational administration. He received his doctorate from Columbia University Teachers College. His latest book is entitled, *Introduction to School Finance*, published by Macmillan Company. Additionally, Dr. Jones has consulted to the government of Nepal and has served as a visiting fellow at the University of New England in Australia.

Thomas N. Jones is the Executive Director of the National Organization on Legal Problems of Education (NOLPE). He has written in the area of school law and has participated in several educational law seminars throughout the country. He is educated as an attorney, graduating from Washburn University School of Law in 1977. His undergraduate work was completed at the University of Kansas where he earned a bachelors degree in political science and education. Mr. Jones is the author of the governance chapter of the *Yearbook of School Law*, 1981, 1982, 1983 and 1984. He has published numerous articles on educational law topics.

Ellen Kehoe is an assistant professor in the Department of Educational Administration at Teachers College, Columbia University. She teaches courses in school business management and school finance. She has written in the areas of school business management and school governance and is co-author of *City Managers and School Superintendents: Response to Community Conflict*, with Harmon Zeigler and Jane Reisman, published by Praeger Publishers.

Richard A. King is associate professor of educational administration at the University of North Carolina at Chapel Hill. His teaching and research are in educational finance, law and business management. Having received his Ph.D. at the SUNY-Buffalo, he has been professor at SUNY-Fredonia and University of New Mexico. He is a member of the American Educational Research Association, the AERA Special Interest Groups on Educational Finance and Legal Issues and the American Education Finance Association. Dr. King's recent publications have appeared in *Administrator's Notebook, Educational Technology, Educators and the Law, Journal of Education Finance* and *School Business Affairs*. Additionally, he has presented his research at the ASBO annual meeting.

W. Hal Knight is presently associate professor and Coordinator of the Post Secondary and Private Sector Doctoral Programs within the College of Education at East Tennessee State University in Johnson City, Tennessee. Previously, he was an assistant professor of educational administration at Purdue University. His areas of specialization are management theory and organizational development within public education. He is author of several articles on the organization and administration of educational institutions. Dr. Knight received his Ph.D. from Kansas State University. He holds a M.P.A. from West Virginia College of Graduate Studies. Prior to teaching educational administration, Dr. Knight held administrative positions in public education in West Virginia and Maryland.

Maureen W. McClure is an assistant professor of educational administration at the University of Pittsburgh where she teaches school finance, school business operations and economics of education. Her research interests include the role of education in regional economic development, long-range strategic planning, program costing and decision support systems. She received her Ph.D. in educational finance from the University of Rochester, along with an M.B.A. and an M.S. in educational administration. Previously, she was an assistant professor of management, a research associate and a literacy specialist for vocational programs in public schools and community colleges. She holds an M.A. and B.A. in English from Allegheny College.

F. Mike Miles is professor of educational administration at Northern Arizona University in Flagstaff, Arizona. Dr. Miles specializes in school finance and computer simulations. His past experiences include school teaching, principalship, chief business official and superintendent. He has served six terms on the directors board of the Arizona Association of School Business Officials. He has presented his research at the ASBO annual meeting as well as written for *School Business Affairs*.

Joseph L. Natale is assistant superintendent for administration at Yorktown Central School District, Yorktown Heights, New York. Previously, he served as assistant superintendent for business and federal programs for the Newburgh City School District in New York. He has taught in public schools, and is presently an adjunct professor at the State University College of New Paltz. He has published in *School Business Affairs*, *Planning and Changing* and *Journal of Education Finance*, as well as presented numerous conference papers including the ASBO annual meeting. He received his Masters in Mathematics and Operations Research and Doctorate in Educational Administration from the State University of New York at Albany.

Julie Underwood received her B.A. in political science and sociology from DePaul University. She graduated from Indiana University, Bloomington, School of Law and then served as a clerk in the Indiana Court of Appeals. She received her doctorate from the University of Florida in educational administration. She is an assistant professor of educational administration at the University of Wisconsin-Madison. Prior to her appointment, she was an assistant professor at the University of North Dakota. She has authored articles and made national presentations in the area of education law.

L. Nathan Randal is President of Randal and Associates of Napa, California. Mr. Randal has served nearly twenty years in risk management and insurance administration. Additionally, he has served as a school business manager. He has conducted numerous workshops, seminars and classes in various aspects of insurance, safety and risk management and has presented his research at the ASBO annual meeting. He has conducted feasibility studies and implemented self-funded workers compensation programs in over 175 school districts in California. He has developed group purchase and self-funded programs for property, liability, medical, dental and vision coverage for school districts. He is a member of the Public Agency Risk Managers Association and California ASBO.

Donald L. Robson served ten years in Michigan schools as teacher, high school principal and central office administrator. After completing his Ph.D. in educational administration at Michigan State University, he was appointed assistant professor of educational administration at Purdue University where he taught school administration and special education administration. In 1982 he assumed the Directorship of the Bureau of Educational Research at Montana State University where he is currently associate professor and head of the Department of Educational Services which includes programs in K-12 School Administration, Adult and Higher Education and Guidance and Counseling.

Richard G. Salmon is associate professor of educational administration at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. Dr. Salmon teaches graduate courses in school finance and serves as program leader. He has served as a consultant, delivered professional papers and published in the area of education finance. Dr. Salmon is a member of the Board of Editors for the *Journal of Education Finance* and has served on the Executive Board of Directors for the American Education Finance Association.

Sam B. Tidwell, emeritus professor of accounting, School of Business and Engineering Administration, Michigan Technological University, is author of the Association of School Business Officials' 1984, third edition of, *Financial and Managerial Accounting for Elementary and Secondary School Systems*, and former Chairman of: ASBO's Accounting and Finance Research Committee; the American Institute of Certified Public Accountants' Public School Accounting Committee; and the Board of Accountancy, State of Michigan. He has conducted comprehensive workshops on public school fund accounting at twenty universities for ASBO, for regional ASBO associations, for the federal government and for many state and local school systems and other governmental units.

Paul Thurston is an associate professor of educational administration in the Department of Administration, Higher and Continuing Education, at the University of Illinois in Urbana-Champaign. He is a member of the Illinois Bar Association and specializes in school law. He has written numerous school law articles in the area of tenured teacher dismissal, torts and defamation.

Dorothy Van Egmond-Pannell is Director of Food Services for the Fairfax County, Virginia, Public Schools. She received her B.S. degree from the University of Mississippi in institutional administration. She has received numerous awards including, the Food Executive of the 1985 Year presented by the Restaurant Association of Metropolitan Washington, (DC); the Most Distinguished Pacesetter Award of 1983 presented by the National Roundtable for Women in Foodservice; and the Silver Plate Award in 1981 presented by the International Food Manufacturers Association. She is the author of *School Foodservice*, third edition, published by AVI Publishing Co. of Westport, Connecticut.

Wayne Worner is a professor of educational administration in the College of Education at Virginia Polytechnic Institute and State University. He holds his doctoral degree from the University of North Dakota. He has served as the Acting Dean of the College of Education. Prior to his appointment to the graduate faculty he served as a classroom teacher, principal and assistant superintendent for several public school districts including the superintendent of Grand Forks, North Dakota. Recently, he was on academic leave as supervisor of secondary education for the Janesville, Wisconsin, public schools. Dr. Worner has written numerous articles and has presented his research at major conferences of educational administration.

1

Introduction to School Business Management

F. Mike Miles

The importance of planning for the management of school systems was recognized in colonial statutes. The original colonies required that a committee of freemen establish revenue, collection and expenditure procedures. The statutes called for a clerk or treasurer to be the fiscal manager, and no provision for compensation was provided. According to Chapter 26 of the Province Law of the Bay Colony, 1692-3, an educational system with its various managerial components was to be established. The chapter stated:

> That the inhabitants of each town within this province, shall take due care, from time to time, to be constantly provided of an able, learned orthodox minister, or ministers, (or school masters) shall be suitably encouraged and sufficiently supported and maintained by the inhabitants of such town. And all contracts, agreements and order heretofore made, or that shall hereafter be made by the inhabitants of any town within this province, respecting their ministers or school masters, as to their settlement or maintenance, shall remain good and valid according to the true intent hereof, the whole time for which they were or shall be made, in all the particulars thereof; and shall accordingly be pursued, put in execution and fulfilled. And where there is no contract and agreement made in any town respecting the support and maintenance of the ministry (or school), or when the same happens to be expired, and the inhabitants of such town shall neglect to make suitable provision therein, upon complaint thereof made unto the quarter sessions of the peace for the county where such town lies, the said court of quarter sessions shall and hereby are empowered to order a competent allowance unto such minister (or master) according to the estate and ability of the town; the same to be assessed upon the inhabitants by warrant from the court, directed to the selectmen, who are thereupon to proceed to make and proportion such assessment in manner as is directed for other public charges, and to cause the same to be levied by the constables of such town, by warrant under the hands of the selectmen, or of the town clerk by their order.[1]

The act further stated that if the town failed to provide for the school, the court was then empowered to establish one and to order levies to support the school. Fiscal responsibilities would be removed from the treasurer and assumed by a court-appointed agent.

As schools grew in size and in responsibility, the unpaid clerk's time was severely overextended. However, 150 years passed before the first full-time school business administrator was employed by a public school system. The city council of Cleveland, Ohio, hired an "acting manager" in 1841 to keep the books, prepare the payroll and care for the school building.[2] Cleveland added "superintendent" to its administrative staff in 1853.

As local school districts began to flourish, state legislatures enacted laws requiring that school districts designate a chief school fiscal officer. State departments of education have followed with certification requirements. Today, the position of school business manager has become an accepted administrative position in the great majority of school districts. Job titles for the manager range from Administrative Assistant to Superintendent for Business Services.

The Growth of a Profession

The first business manager was employed to "keep the books and care for the building."[3] This pattern continued; as school boards expressed their interest in hiring administrators prepared in bookkeeping and business functions rather than education. Early business managers were not expected to participate in educational decision making, and educators were to leave the business aspects of the district to the manager. The growth of districts and the acceptance of the management team idea have greatly changed the concept and expectations of school business officials' duties and title.

Several factors have been in the forefront of the changing concept of school business management. The most significant of these concepts developed from societal and governmental change.

The Decline of Rural Population

Movement from the farms to the cities resulted in an increase in school business administrators. Generally, rural and small school districts did not employ school business administrators. The decline of the family farm led to the school district consolidation movement resulting in the merger of small schools. Districts of larger geographical size with more complex educational programs, transportation needs and administrative reorganization opened rural schools to the position of school business administrator.

The Diversity of Funding and Accountability

Historically, schools were supported through local taxation. State governments regulated programs, length of the school year, attendance and in a few instances taxation limits. However, little attention was given to local district fiscal management practices.

This lack of supervision changed in the mid-1960s when the federal government began a massive infusion of capital and accompanying regulations. The state governments in the 1970s, following California's lead, began a series of cost-cutting measures through revenue reduction legislation. More complex accounting systems to track revenues and expenditures from categorical grants, block grants, rental property, leasing contracts, inter-governmental agreements, self insurance and so on were adopted by the districts. The issuance of *Federal Handbook II* accounting procedures caused concern among school administrators and hastened the employment of a school business administrator in many small districts.

Increasing Expenditures

The 1970s produced a 23-billion-dollar growth in educational expenditures despite a declining enrollment for the corresponding period. It is suggested that per-pupil costs will continue to rise with the "search for excellence" and with the increased competition to increase teacher salaries and extend the school year. The long-postponed renovation of buildings cannot be postponed indefinitely, and new buildings are being constructed in the high-growth sunbelt states.

Districts are forced to seek alternative funding to maintain programs and facilities. Refinancing revenue bonds and lease/purchase agreements are complex methods of extending limited resources. Innovative fund-raising techniques, long employed by private schools, are being adopted by public school districts.

The Role of the School Business Administrator

Administrative Organization

The role of the school business administrator is determined by the organizational pattern of the district. General classifications are dual control and unit control. In districts that have adopted a dual-control administrative organizational pattern, the school business administrator reports directly to the school board and is not responsible to the superintendent. The theory behind this plan is that the superintendent is responsible for educational matters and the business administrator is responsible for business matters. This type of administrative organization provides for the educational and business functions of a district to be brought together at the board level for decision making.

Unit control places the superintendent of schools at the head of the administrative structure. All administrators report to the superintendent, and the superintendent reports to the school board. Although the superintendent is the head of the organization, this structure does not rule out diversified decision making. The school business administrator is a member of the administrative cabinet. All members are advisers to the superintendent and are often called on to represent the superintendent in their areas of expertise. The business administrator's operations are affected by every educational decision, and business decisions affect the educational operation. It is imperative that a team concept be maintained by the members of the cabinet.

As the operation of the schools becomes more complex, the need for specialization within the area of school business administration becomes more critical. The school business administrator becomes the cabinet representative for the areas of accounting, finance, transportation, food service, data processing, purchasing, maintenance and so on. A general administrative knowledge of all the preceding areas is imperative.

Basic Principles

Frederick Hill (and many other authors) has discussed a number of basic principles that serve as guidelines to school business administration.[4] These principles include:

1. School business administration operates as a service area to the administrative organization. Its purpose is to support and enhance the educational programs of the school district.
2. The administrative organization for effective operation of the district should consist of the unit control plan with one chief administrator reporting to the board of education. The school business administrator should be a highly trained member of the superintendent's cabinet qualified to act on the superintendent's behalf.
3. Greater attention should be given to the preparation and in-service components of the school business administrator's education as the operation of schools becomes more complex.
4. Sound business practices must be observed in all school business activities. The articulation of these practices to cabinet members and the public is the responsibility of the school business administrator.
5. Ethical codes of conduct should be observed at all times. No appearance of impropriety can be tolerated. Schuyler Joyner, past president of the Association of School Business Officials International (ASBO) placed ethical conduct in clear perspective when he said, "If you wouldn't want to see it on the front page of your local paper don't do it."[5]

Areas of Responsibility

No uniform pattern of responsibilities exists for the school business administrator. Various texts list similar responsibilities but do not agree on a common list. Regardless of the responsibilities, personal leadership is required if responsibility is to be carried out. Flowers[6] defines leadership as:

- Personality in ACTION
- Incisive JUDGMENT in all situations
- Genuine ENTHUSIASM for work and for people
- Contagious VITALITY which encourages followers.

As a member of the superintendent's cabinet the school business administrator is responsible for providing leadership and support for the district's programs. McGuffey found seven basic functions of management that were rated as important by school business administrators.[7] Tasks of the school business operation fell under these general responsibilities. McGuffey concluded that a successful school business administrator must possess or develop management skills in these general areas of responsibility:

Planning. Planning is the process of looking ahead and preparing for the future by identifying resources and needs and developing a master plan to follow. The recent rise in public interest in the educational process has raised questions concerning resource allocation, and the value of current practices. The school business administrator has been given the responsibility of providing the data base for resource allocation and unit costs. This greatly expanded role has forced the academic and business operations to cooperatively develop projections of educational needs. At a time when the role of the school business administrator is becoming more technical the need to expand and become more of a generalist is also present.

Organizing. A manager must create and maintain all the conditions and relationships necessary for the business office to function efficiently. The organizational structure should assure that appropriate procedures for accomplishing the work are established and remain in place. Requirements of manpower, materials, finances and other resources must be determined and assigned at the needed time. Lines of authority and a clear communication process must be understood by all agencies and levels.

Staffing. The staffing responsibility is much broader than the title implies. It assumes the ability to correctly and clearly state job requirements in an advertisement, and screen, employ and provide the job introduction to the personnel needed to achieve the organization's goals. Staffing also involves staff development programs to encourage staff to develop professionally and advance in the organization. This process requires an evaluation procedure and a reward and remedial system.

Directing. Direction is related to control, but is different from it. Direction involves guidance and leadership. Individuals must be motivated to achieve the organization's objectives. A feeling of "ownership" for the organization must be established within the personnel. The function of directing includes the components of communication, morale, job satisfaction, productivity and loyalty.

Controlling. Once goals have been established, all action is regulated in relation to the goals. "Checks" are established to measure accomplishments and actual results are compared with the criteria and needed corrections are made. This function is based on the manager's ability to foresee potential conflicts and correct course before the conflict arises. Trouble spots are avoided or tackled in such a way to assure project success.

Decision making. The decision-making process involves three steps: identification of the problem, review of alternative solution and the choice of the appropriate solution. Decision making is the initial element in the administrative process. Decisions, as a general rule, should be made as close as possible to the point of implementation. If the manager is to delegate this authority it must be understood that the power will fall on personnel who have the clinical analysis skills and technical knowledge of the problem to be solved. Decision making should be a deliberate process that examines all possible solutions and their consequences before the choice is made.

Evaluating. Evaluation is the process by which an organization's activities are measured to determine their contribution to the achievement of basic goals. Evaluation is a continuous process that provides for examination of ongoing activities. Decisions providing for the alteration of the program are often possible on an in-progress basis. The ultimate challenge in evaluating educational programs is to translate goals into operational terms that can be evaluated to establish future needs in the areas of staff and budget.

The school business administrator is expected to manage operations of the office within the areas of responsibility. Delegation of authority is required if the day-to-day tasks are to be accomplished.

Professional Preparation and Certification

The debate concerning the preparation of the school business administrator has gone on since the first school business administrator was employed. Whether a business background is preferable to an educational background may never be settled. It is generally agreed that the school business administrator needs an understanding of both areas if he or she is to function as a contributing member of the superintendent's cabinet. The business administrator must possess the financial and business management skills needed by any manager in the private sector. In addition, the business administrator must perceive and understand the probable effects of business application and functions on the educational programs of the schools.

Several states, Arizona being the most recent, have adopted certification requirements for the school business administrator. The Arizona requirements include the possession of a B.A. certificate (in any area) and the presentation of competency mastery in selected areas. Any preparation program should provide for the entry into the area of school business administration by educators or business administration graduates.

The Association of School Business Officials (ASBO) University Contacts Committee sponsored research by C.W. McGuffey to determine the relative importance of skills needed by the school business administrator. The skills (task clusters) were ranked by practicing school business administrators. Of the 28 skills, only warehousing and school supplies management were ranked as of low importance. Any preparation program must certainly include these task clusters in addition to addressing the seven areas of responsibility discussed earlier.

McGuffey's task clusters follow in order of importance.

HIGH IMPORTANCE

1) Financial Planning and Budgeting
2) Fiscal Accounting and Financial Reporting
3) Cash Management
4) Fiscal Audits and Reports
5) General Management
6) Payroll Management
7) Purchasing

AVERAGE IMPORTANCE

8) School Insurance and Risk Management
9) Debt Service and Capital Fund Management
10) Legal Control
11) Office Management
12) Educational Resources Management
13) School Activity and Student Body Funds
14) Personnel Management
15) School Plant Maintenance
16) School Property Management
17) School Plant Operations
18) School Community Relations
19) Collective Negotiations
20) Plant Security and Property Protection

21) Data Processing
22) School Transportation Services
23) School Construction Management
24) School Food Services
25) Staff Development
26) Grantsmanship
27) Educational Facilities Planning[8]

Preparation programs will be severely taxed to provide the needed skills. In-service, on-the-job training will be utilized in most districts.

School business administrator certification was required or permissive in 18 states or provinces according to a study published by the ASBO Professional Development Research Committee in 1980.[9] The Professional Development Research Committee recommends that certification of the school business administrator be adopted in all states. It further recommends that provisions include professional certification standards recognizing the business background as well as educational background.

In addition to professional preparation, the following personal characteristics have been adapted from Frederick Hill's *School Business Administrator.*

The School Business Administrator Should Possess Plenty Of Directed Drive. The true leader has more drive than his or her peers. The school business administrator has more energy, more staying power, more confidence.

The School Business Administrator Should Like People And Show It. A good administrator really likes people. A sincere liking for people as unique personalities, coupled with a bright faith in the future make a winning combination.

The School Business Administrator Should Be Able To Get Along Well With Others. Without this characteristic, hard sledding will interfere with his or her achievements and the achievements of the group of which the school business administrator is the leader.

The School Business Administrator Should Be A Good Listener. One of the best instruments of the administrator is a pair of good ears.

The School Business Administrator Should Be A Person Of Integrity. Honesty, sincerity and truthfulness still win respect and instill like traits in others.

The School Business Administrator Should Be Fair In His Or Her Dealings With All. The administrative menu offers a steady diet of "hot potatoes." The good administrator doesn't pass the buck but accepts the blame and builds a reputation for fairness and deserves it.

The School Business Administrator Should Establish A Good Work Climate. The true leader will be patient, be firm, have a sense of humor—and the staff will produce results. By laying a foundation of trust, sincerity and mutual respect, a business manager can lay to rest many nameless anxieties of the staff.

The School Business Administrator Should Be A Self-Starter. A leader sets the pace for new ideas and picks up the ball and runs.

The School Business Administrator Should Possess A High Threshold Of Annoyance And A Sense Of Values. The wise one rarely "blows off steam." He or she is no victim of his or her emotions. The school business administrator is bigger than the problem that confronts him. The school business administrator's perspective prevents him or her from taking himself too seriously, and gives each inner resources in areas of stress.

The School Business Administrator Should Develop High Articulation And Writing Skills And Watch His Or Her Language. The ability to draw persuasive "word pictures" will help others to see and to accept group objectives. His or her language should be above reproach, and he or she should carefully avoid needless offense to anyone.

The School Business Administrator Should Possess The Ability To Make Problems Of Others His Or Her Own. The staff will come to the school business administrator if they receive help when they ask for it. The willingness to accept the problems of others and to share in the solution is an evidence of leadership.

The School Business Administrator Should Be Able To Accept Criticism. He or she need to guard against creating a "yes" man attitude on the part of his or her associates. A good administator knows how to take criticism and how to use it constructively.

The School Business Administrator Should Be Able To Render Decisions. Frequently, more grief among staff members is created by no decision than by a poor one.

The School Business Administrator Should Be Willing To Bask In Reflected Glory. The real business manager sees him or herself as a member of a team rather than the star player. The good leader sees that good work is recognized and proper credit given to all who have shared in it.[10]

Personal Attitudes and Values

The emphasis on the importance of relationships with people suggests that attention must be given to the kind of person the school business administrator is expected to be and must be. Certain criteria for good administrators have been further suggested by Frederick Hill:

1) (He or she) is first of all a good person.
2) (He or she) wants to be part of a strong team rather than a strong person standing alone. He or she selects able and creative persons as co-workers, cooperates with them in a give-and-take relationship, and desires the efficiency and broad viewpoint that is possible when several first-rate minds are analyzing a situation.
3) (He or she) has respect for all those with whom he or she deals. He or she respects them, first, because he or she believes in the fundamental dignity and worth of every human being, and second, because he or she believes that a person should be treated with consideration, not only for what he or she is, but for what he or she might become.
4) (He or she) selects qualified assistants and delegates as much routine to them as possible.
5) (He or she) is compassionate.
6) (He or she) never forgets that his or her power is delegated to him or her by others, and that it is for them to exercise only so long as he or she makes use of it in the spirit and for the purposes behind its bestowal in his or her hands. One's authority is . . . limited on every hand by the objectives one is seeking and the interests and desires of those who are affected by the actions.[11]

When is a School Business Administrator Needed?

No set formula concerning school expenditures, number of employees, enrollment or average daily attendance is used to determine when a school business administrator is needed. The need for such a position depends on several factors relating tasks to be performed to the number and skills of staff currently employed.

Factors that should be seriously considered before the final decision is reached include:

Growth rate of the school district. Is the district stable, or is it undergoing a period of acceleration or shifts in enrollment?

Extent of local programs and services. Are such services as transportation programs and school lunches provided for students on a broad or limited basis, and to what degree does the school district participate in pre-school and adult or post-high-school programs?

Pattern of organization for the school district. Does the school district have several buildings on scattered sites, or are all facilities located close to each other, thereby reducing logistical problems?

Condition of existing facilities. Are maintenance problems and new facility needs minimal or will these require considerable attention by central office administrators?

Interests and qualifications of other central office staff members. Does the school district employ sufficient central office staff members so that the superintendent can assume responsibility for school business affairs and have assurances that adequate leadership attention will be given to the developement of other facets of the total school program?

Role of non-professional staff members. Does the school district have experienced non-professional staff members who require minimum supervision as they assume responsibility for certain phases of the school business operation?

Magnitude and scope of the total school program. To what extent does the school district provide community educational and recreational services and participate in vocational programs?

Whenever the demands of the business area grow to such a magnitude that it taxes the present staff, a business assistant or an administrative assistant in charge of business should be hired. Frederick Hill recommends that an assistant be employed when the average daily attendance reaches 1,000 and that a full-time school business administrator be hired when the enrollment is between 1,500 and 2,000 pupils.[12]

Code of Ethics

Ethical behavior is a facet of all professions. In accepting membership in the school business administrator's organization (ASBO), the school business administrator accepts the Code of Ethics established by the organization. An individual accepts the obligation to exhibit high standards of personal and professional conduct.

Summary

The school business administrator has become an important part of the superintendent's cabinet. It is generally accepted that a school business administrator can contribute to the team concept in greater magnitude if he or she has a strong background in business applications as well as an understanding of the educational organization.

NOTES

1. Massachusetts, *The Acts and Resolves*, Public and Private, of the Province of the Massachusetts Bay, Vol. I (Boston: Wright and Potter, Printers of the State, 1869), 62.

2. F.W. Hill, *The School Business Administrator* (Reston, VA: Association of School Business Officials, 1960), 10.

3. Ibid.

4. F.W. Hill, *The School Business Administrator*, 3rd ed. (Reston, VA: Association of School Business Officials, 1982).

5. S. Joyner, "The School Business Administrator," paper presented at the School Finance Workshop, Flagstaff, Arizona, 1971.

6. A.W. Flowers, "The Role of the School Business Official in the Management Team," paper presented at the School Finance Workshop, Flagstaff, Arizona, 1971.

7. C.W. McGuffey, "Competencies Needed by the Chief School Business Official," Association of School Business Officials, University Contacts Committee manuscript, 1978.

8. McGuffey, *A Handbook on Professional Certification of School Business Officials*, (Reston, VA: Association of School Business Officials, 1980).

9. Hill, *The School Business Administrator*, 1960.

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11. Hill, *The School Business Administrator*, 3rd ed., 51-52.

12. Hill, *The School Business Administrator*.

2

Legal Context of the Public School District

Paul W. Thurston

The aspiring school business administrator probably does not consider legal knowledge an important area of cognitive information. Expertise in accounting, budgeting, insurance management and purchasing are just a few of the areas needed by school business officials. Legal knowledge or expertise is not typically part of the school business official's job description.

Legal knowledge is very specialized. Usually, one hires an attorney only when in trouble or in need of such specialized help. There are certainly special times when school officials must have access to attorneys and the specialized knowledge they provide. However, viewing legal knowledge in this light oversimplifies the status and role of the school business official. This view is compatible with that of the person who is a mere functionary, the person who does what one is told or one who does only that which his or her predecessor did ten, fifteen or twenty years ago. The functionary need not worry about the legal context of the school district or his or her position in it. Such a view is, for the most part, unrealistic for the contemporary school business official. In this time of rapid change and litigiousness, school administrators in general, and school business officials, in particular, need to understand the legal context in which they operate.

Two levels are involved. First, there is the matter of power and authority. Most simply stated, what does the school district, and the administrator who acts on its behalf, have the power to do? With the variety of participants acting in the public schools—teachers, administrators, parents, students, policy makers—there is a certain confusion about who has how much authority to do what to one another. A basic understanding of the governmental organization of the school district and a passing acquaintance with the variety of legal sources which can control a particular relationship are fundamental to defining one's particular authority. In certain circumstances, the relationship between parties will be bounded by the statutory authority granted to the school district by the state legislature; this is authority limited by the state and federal constitutions. Additionally, considerable latitude exists for the school district to bind itself and other persons and entities to contracts. The district also has responsibilities to protect the health and safety of its students. The scope of the relationship can be identified as a particular legal source: statutory, regulatory, constitutional, contractual or tortious. And these relationships are significant conceptually because they have implications for potential liability and define the scope of power and authority enjoyed by particular actors.

A second level important in understanding the legal context of school business is an appreciation of the legal process. At a very simplistic level, a difference between statutory law and judge-made case law exists. Some passing acquaintance with statutes and cases help the school business official be a better consumer of legal information. There is a skill involved in reading a case, relating the facts of the dispute to the conclusion or holding of the court, and then relating this case to other similar cases so as to articulate a general standard of acceptable behavior. Knowledge of the legal process involves learning the importance of several types of priorities: authority, court and time.

Sources of legal authority range from written federal and state constitutions, statutes, administrative rules and regulations and judge-made law. Constitutions have the highest priority followed by statutes. Judicial decisions involve interpretations of constitutions and statutes and the development of legal principles. Part of the Anglo-American jurisprudential heritage has been this deference to judge-made law, known as common law. This common law has been particularly significant in the development of contracts and torts principles. Although more and more of this common-law area is being controlled by statute, it is still an area in which case law can make for enforceable standards of expected behavior. Finally, administrative rules and regulations explicate the obligations and standards of administrative agencies. These rules and regulations have the full force of law so long as they are authorized by legislation and are not in conflict with governing constitutions, statutes or court decisions.[1]

The American judicial system involves appellate review of legal claims. The trial court is responsible for determining questions of fact, and if an appeal is made it is made on a matter of law. The consumer of judicial decisions must read the decision of the highest court which has ruled on the matter.

The priority of time refers to reading the most recent decision. Although the principle of *stare decisis*, or precedent, is fundamental to the operation of American jurisprudence, there are times when the highest courts at the federal and state level reverse earlier decisions. These are times when, in trying to understand what a series of cases means, attention to the date of a particular decision is critical.

As one becomes more knowledgeable about the legal process one becomes increasingly attentive to the facts of a particular matter and to the jurisdictional constraints that surround judicial decision making. Consider, for example, the not unusual circumstances, where a school business administrator from state A, describes for an administrator in state B, a particular judicial decision which allegedly has the potential for drastically changing the way he or she performs a certain task. Before he or she changes the practice too fast he or she will probably want to know the facts of the dispute litigated and compare these to the way procedures operate in his or her district, know the source of law applied to the facts and determine whether the same or similar law applies in his or her jurisdiction.

An administrator's knowledge of legal process is no substitute for the expertise of attorneys. Increased legal knowledge by school business officials is not proposed as a substitute for legal advice form attorneys. Legal expertise is necessary. This chapter is premised upon the belief that knowledge of the legal process makes one a better consumer of legal expertise; so that one will have a better sense of knowing when to ask for advice, and what type of questions to ask. One can then better practice preventive law by shaping policies and practices to avoid litigation while accomplishing the educational objectives of the district.

This chapter is organized into three parts. The first considers the local school district as a legal entity; the second examines other places of authority or power which influence the operation of the local district. The third part provides a brief overview of potential liability for failure to comply with a particular requirement.

Throughout the chapter a number of cases are cited because they provide examples of the kinds of disputes that are being litigated which involve school business officials; they help explain certain legal principles. The nature of the disputes will change, but the underlying question of authority or power will most likely be at the center of much future litigation. Does the school district have the authority to do such-and-such in this way? Does a procedure violate a constitutional limitation or a federal or state statutory provision? Attention to the existence of appropriate authority is necessary when a school district tries to respond to different circumstances and different needs. And there are times when the district is simply challenged with litigation by a disgruntled parent or citizen. So, whether one is a creative administrator attempting to develop new responses for educating children or an administrator faced with taking an action that a certain constituency disapproves of, the administrator will want to be attentive to matters of power and authority.

The Local School District as a Legal Entity

In this federalist system, the state and national governments have financial resources which can be made available to public schools. Traditionally, public schools have been viewed as primarily the responsibility of the state. The federal Constitution does not specifically mention education as one of the powers of the United States, and therefore the language of the Tenth Amendment which specifies that "powers not delegated to the United States by the Constitution . . . are reserved to the States . . ." gives the state primary responsibility. The federal government has provided some resources for public schools under authority from the general welfare clause of Article I, but this money, generally made available to further specific social policies, meant school districts had to meet certain guidelines to qualify.[2] Even though the federal government has become financially involved in education, there is no question about the primary responsibility for education falling on the state.

Authority to Act

The state legislature has plenary power in education and in establishment of educational policy, and this power is limited only by the federal constitution and the state's own constitution. This plenary power allows the state legislature to delegate authority, normally to state administrative agencies or local boards of education in the area of education, and to alter or revise its delegation. Except for Hawaii, which operates only one state-wide school district, the states have delegated major authority to local school districts for the provision of public education. The operation of these schools is enough of a routine that there is seldom a question of authority or power. But when a school district faces a new type of problem and wants to develop a policy about the problem which goes beyond anything that has been done before, there can be a question about whether authority exists for such action. Or, when a school district takes a certain action which upsets a certain constituency of the district, this constituency will consider legal challenges to the proposed district action. One of the most common challenges will be to the district's authority to undertake such action.

Consider, as an example of this second type of question about authority, a legal challenge made by a disgruntled group of parents upset by a particular decision similar to one that many boards of education are being forced to make: the closing of a school. Due to declining enrollments the board of education in a high school district of eight high schools foresaw the probability of having to close one high school. Utilizing recommended practices for such a school-closing decision, the board appointed a citizens' advisory committee to develop criteria to guide the decision. The board adopted the criteria—which, for example, included retention of the schools that accommodate the most complete selection of programs for students, have low operating and maintenance costs, minimize student busing, accommodate the physically handicapped and are located in areas with the largest potential for growth in student enrollment—and directed the administration in conjunction with a consulting firm to apply the criteria. In late April the board received a report ranking the schools for closing according to the twelve criteria. The board continued to reassess the rankings and seek more information until a mid-May meeting when it finally approved the closing of a high school which had appeared third on the original list of schools reported to the board. Suit was brought against the district seeking an injunction thus halting an implementation of the school-closing order on the grounds that the decision was arbitrary and capricious because the board failed to comply with the criteria it had adopted in making the final closing decision. The trial court found that such a decision was arbitrary however and the appellate court reversed on appeal. The appellate court held that the state legislature delegated authority to close schools to the local school board. Since the board had no authority to delegate its responsibilities and duties in administering the school closing to an advisory committee, the court held, *inter alia,* that, "the board acted within its discretion in the (school closing) and concluded that to require a strict application of the criteria prepared by the several committees would impermissibly subordinate or limit the discretionary powers vested in the board by the legislature."[3]

The question of appropriate power or authority can be critical in determining what actions a particular board or state agency can make. The following sections consider several important themes that run through this area of the law, and provide several recent examples of litigation where these themes have been used by the court in deciding the case.

Legislative Delegation of Authority

The rule applying to the state legislature's authority to delegate is much easier to state than it is to predict the court's application of it in specific circumstances. The rule is that the legislature may delegate by statute administrative powers to administrative agencies in the executive branch of government, but may not delegate law-making or legislative powers. The rationale for this distinction between legislative and administrative delegation is drawn from the constitutional distinction between legislative and executive powers. The transfer of legislative authority to administrative agencies would dilute legislative autonomy and threaten the basic principle of separation of powers central to our constitutional system. In addition, this would tend to put the decision maker out of reach of the electorate, the important political check that exists in our democratic system. As matters become more complicated it is impossible for the legislature to administer vast and varied administrative agencies which are ultimately under its authority. Therefore, courts, in distinguishing delegable administrative power from nondelegable law-making power, search the enabling statutes for reasonably precise guidelines which might describe the policy objective(s) of the legislature or guide an administrator's discretion in implementing the legislative goal. The general legal theory is that the delegation is valid so long as the statutory guidelines limit the discretion of the administrators and do not allow for administrative judgment to be substituted for that of the elected legislators.

The application of this rule is much more difficult to predict. Particular cases include passages that describe some of the elements that go into the balance. For example, consider the following:

> The line separating that which is purely regulation, and that which is purely legislation, is necessarily indistinct, and becomes more so as the line separating such authority is approached. Therefore, courts . . . will resolve the doubt in favor of the validity of the [delegating] act rather than holding it invalid . . . which is especially true when the [administrative] act is essential and necessary for carrying out the broad purpose and intent of the Legislature.[4]

As this suggests, it is important to identify the subject matter of the legislation, the specificity of guidelines surrounding the legislation and the extent to which other interests (either individual interests which may be protected by the constitution or group interests that may be dealt with in other legislation) are present. Finally, there seem to be differences from state to state on how courts will treat this distinction.

One vivid example of this difference between states is in the area of collective bargaining. Confronted with the question of whether local school boards, absent express statutory authority, could recognize a labor organization as an exclusive representative of a group of public employees and negotiate and enter into binding contracts with the organization regarding terms and conditions of employee employment, the courts of Illinois and Virginia reached opposite conclusions. An Illinois appellate court held that local school boards had such authority.[5] Yet in 1971, the Virginia Supreme Court applied the Dillon rule of strict construction that allows local public bodies to exercise only those powers conferred expressly or by necessary implication by the state legislature to conclude that collective bargaining was not authorized.[6] Presumably, the labor history of a state is not lost on the judiciary's decision about what test to apply.

Even when powers are appropriately delegated, it can be difficult to know how those powers will extend. Consequently, courts are often called upon to determine whether the administrative body has acted beyond its legally delegated authority. It is easy to read the statute and determine what has been expressly authorized to the administrative agency. But, since many statutes also provide broad discretionary power (which may be necessary for the proper and efficient management of public education) the courts will recognize implied power to act in certain ways (which may be necessary to accomplish the desired legislative policy during changing times and conditions). Yet there comes a point at which the desired authority goes beyond the intent of the statute, when it moves past being an implied power to being a nondelegated activity which is illegal.

Because these general principles of legislative authority and proper delegation of power are widely appealed to, it is instructive to consider some recent cases involving these issues. The Michigan Supreme Court held that early retirement benefits, although not salaries, were working conditions within meaning of the school code.[7] Consequently, the Board of Education had authority to provide for such benefits in its collective bargaining agreement with teachers, an agreement that did not violate the state constitution.[8]

With the financial health and subsequent vitality of local school districts so dependent upon the state-aid formula, it is not surprising that local districts have attempted various ways of influencing this formula. Two recent attempts, one in Michigan where a local district sued the state, and the other in Colorado, where the district became actively involved in a campaign in a proposed referendum to amend the state constitution, were held invalid. A Michigan appellate court held that school districts do not have standing to sue the state on claims regarding the constitutionality of state financing schemes.[9]

> [School districts] are given no power, nor can any be implied, to defy their creator over the terms of their existence. They surely have no power to bring suits of such nature on behalf of residents within their boundaries, or to extend public funds to finance such litigation of, or on behalf of, private citizens.[10]

In an earlier case,[11] a Michigan court rejected a school district's attempts to challenge the constitutionality of a statute governing school district reorganization. The Michigan appellate court cited this earlier case as authority and concluded that the school district had limited authority to challenge the state.

> The policy of the state has been to retain control of its school system, to be administered throughout the state under state laws by local state agencies organized with plenary powers to carry out the delegated functions given it by the legislatures . . . we do not believe plaintiff is a proper party to raise the question of whether or not its residents have the right to vote on the transfer. This right, if existing at all, would exist in the voters and not in the school district. Plaintiff school district is an agency of the government and is not in a position to attempt to attach its parent.[12]

In the second case, a Colorado school district made cash expenditures and in-kind contributions publicly to oppose a proposed referendum to amend the Colorado constitution regarding elector approval of new or increased taxes. This action was challenged as a violation of the State Campaign Reform Act which said, in the pertinent part, "No [board] shall make any contributions or contributions-in-kind in campaigns involving the . . . election of any person to any public office. They may, however, make contributions or contributions-in-kind in campaigns involving only issues in which they have an official concern." The Appellate Court affirmed the trial court in holding that cash and in-kind contributions for this referendum violated the statute.[13] The specificity of this Campaign Reform Act controlled any implied authority the district claimed under the statutes. In addition, no First Amendment right of school districts to speak on public issues applies to these facts. Finally, no official concern existed which authorized such expenditure. A matter of official concern must minimally involve questions which come before the officials for an official decision. Since a change in the tax scheme would not cross school administrators' desks for approval, the act was not considered an official matter.

A North Carolina case involved a challenge about the appropriate authority of a school district to initiate an extended day-care program to more adequately satisfy the different home needs of many of its latch-key students. The case provides a good example of what the court found important in deciding whether such action was authorized.

A school district initiated an extended day program which, for a fee that supported the program, provided activities after school for children that might not have parents at home at 2:30 p.m. upon completion of the normal school day. The only costs to the school district were fuel and lighting costs associated with use of the building. A coalition of day-care center operators challenged the authority of the school district to initiate such a program. The North Carolina Court of Appeals held that the school district had the authority under state statute to operate such a program for latch-key children.[14] Additionally, the court upheld the authority of the school district to expend money for heating and lighting the building for the benefit of these extended-day pupils as a public benefit. The program provided academic improvement for many students. Because the school board had the authority to absorb the fuel and electricity costs of the program (it was for a public purpose, to improve the educational achievements of latch-key children) the court rejected the contention that the expenditure must be approved by the voters in a referendum.

As school districts are financially strapped, they seek alternative avenues for funding. One apparently attractive source is the generation of new, different taxes. These newly imposed taxes seem to be challenged often, and they are not popular in the courts.

A Pennsylvania school district imposed a tax of one percent of the construction cost for the "erection, alteration, repair, renovation, extension or replacement of any building or improvement to real property." The state statute which authorizes such taxing authority grants the court the authority to invalidate such a tax if it is excessive or unreasonable. The Pennsylvania Commonwealth Court held this tax was unreasonable because it singled out new homeowners and remodelers to bear the cost of additional school support.[15] The tax was held to be an unreasonable alternative to raising additional money for supporting the public schools through an increase in the real estate tax millage.

A county school board in Florida imposed a discretionary two-mill tax levy allowed by law. A Florida district court of appeals upheld a challenge to this levy, overturning it on the basis that the levy was illegal and therefore void, because the district had not satisfied the statutory requirements in publicizing the intended levy and allowing an opportunity for community response.[16] For example, one of the statutory requirements involved specific notice about intended use of the money. "Such notice shall specify the projects or number of school buses anticipated to be funded by such additional taxes. . . . "[17] The district court of appeals rejected the school district's claim that there was substantial compliance with the statute. When the taxing power is exercised by a tax authority which does not have inherent power to tax, courts read the statutes granting the tax power strictly. Failure to comply with a statute authorizing a levy is generally considered not just an irregularity, but an omission which invalidates the tax.

A Texas court of appeals held that a school district has no interest or implied authority to levy taxes for maintenance of schools.[18] Authority to levy taxes must arise from some affirmative grant of power from the constitution or the legislators. In Texas, a school district which had validly split from another school district had no power to assess or collect *ad valorem* taxes, since qualified voters of the district had never voted to approve the tax.

A school district passed a resolution to recommend a tax exemption for a proposed hotel resort, in return for the hotel owner's contractual offer to pay all of the assessed taxes in lieu of actual taxes—if gambling were legalized in the state and if the owner were to institute gambling in the hotel. This resolution was declared null and void because, as a matter of law in New York, the legislative body could not bargain away or limit its future powers by a contract which is based on speculative future events.[19]

Appropriate Administrative Delegation of Authority: Redelegation

The law is clear that an administrative agency may not redelegate those discretionary powers conferred upon it to another body or a subordinate employee. In the public school context this standard is most significant in limiting the actions to which an employee of the district can legally bind the district when the board of education has not officially taken action. Some cases distinguish between the ministerial actions of employees, those which are purely mechanical and therefore legitimate, and those which are discretionary and are therefore not proper. Once again it is instructive to consider several recent cases where the delegation principles have been used to resolve a dispute, usually over whether the district is bound to an agreement that an administrator made with a third party on behalf of the district.

A North Carolina appellate court articulated who had the authority to make contracts. "Under the system of public education in this state, local school boards alone have the duty or authority to enter into or authorize purchases or supplies and equipment for the respective local school systems."[20]

A supplier of merchandise for sale by students could not sue the district for the value of unsold/unreturned merchandise when the school board had not entered into the contract. The action of the high school principal could not obligate the school board. In addition, the law recognizes that public officials are deemed to have notice of the limited nature and extent of the authority of principals or other school officials to bind the board of education. Consequently, an argument that the principal had apparent authority to bind the board of education to the contract was rejected.[21]

An Ohio court of appeals reversed a trial court verdict which had awarded almost $20,000 to a supplier of word-processing equipment.[22] The Cleveland School Board had approved purchase of the equipment; it had been ordered by the director of purchasing and a certificate has been signed by the treasurer stating that unencumbered funds were available for the expenditure. About two months later, the business manager learned of the contract and determined that the equipment would not meet the educational needs of the district. The contract was canceled and the board passed a resolution rescinding the purchase. Ohio has two applicable statutes; one applies generally to any subdivision of the state and requires a certificate of the fiscal officer of the subdivision; a second, applying specifically to school districts, requires a certificate signed by the treasurer, president of the board and superintendent. The court of appeals held that this contract for the word-processing equipment was void because the certificate did not contain the requisite three signatures, even though the Cleveland school district did not follow this procedure with most of their expenditures. The vendor was held responsible for knowing the provisions of the statute, and as in this case where the purchase was not routine and might involve the purchase of further equipment it was appropriate for the district to require compliance with the more specific statute. Therefore the contract was void and unenforceable.

A student in the junior class of a Louisiana high school decided to rent a sound system and have a disc jockey play records for the junior-senior prom, rather than employ the more traditional band. A disc jockey was selected and a contract signed by one of the two class sponsors after discussing the matter with the building principal. When the principal later discovered that he was hiring a sound system rather than a band, something he apparently did not understand at the time of the signing, he tried to break the contract because he did not think it appropriate for the prom. In an action for damages for breach of contract, a Louisiana appeals court held that the school district was liable for the amount of the liquidated damages clause stated in the contract.[23] The court held that the principal had implied authority to represent the school board and that this authority was properly delegated to the faculty sponsor who actually signed the contract. Because the principal was properly exercising his authority as principal, the school board was a party to the contract and could be held liable for its breach. In addition, there was no personal liability on the principal, even though he broke the contract, because he was acting on the implied authority given him by the school board. There is no Louisiana statute limiting the authority of the district to be bound by contract only upon certification approval and signature by the board, as exists in other states.

A coalition of parents, students, and residents of the "west side" of Kansas City protested the closing of the local high school. Not getting the desired response about reopening the high school with higher quality and with more community control, the coalition occupied the school to try to force an accommodation from the board. The superintendent met with the group and reached an agreement to establish a community-sponsored experimental high school in the building, to start in approximately one year. About two months before the experimental high school was to open, and after considerable preparation had gone into the planning for the school, the superintendent decided that financial constraints would not allow the opening of the experimental school as planned. The coalition of parents sought specific performance of the agreement, which had been adopted, to open the experimental school. The Missouri court of appeals affirmed the trial court in holding that the agreement was an invalid contract.[24] The central issue was whether this agreement was an exercise of the district's proprietary functions or governmental functions. The general rule is that a municipal corporation may, by contract, limit the exercise of its proprietary functions but not its governmental functions. The appellate court held that the decision to open a school, which had been given up in the agreement with the coalition, was governmental since it goes to the heart of the educational process.

> This is the very function for which school districts exist—not building buildings or operating playgrounds or even hiring teachers—but deciding where and if schools are needed to educate our children. This is not to say that a district may not be able to contract for advice on this question, but to contract away the power ultimately to decide whether certain educational facilities should remain open to serve the district's children is to give up the most basic function of all.[25]

Consequently, the agreement was not enforceable because the district was not empowered to contract away this authority to close a school.

The delegation doctrine can also be important in hiring and firing decisions. A South Dakota district, for example, had an unexpected resignation in late August. The position was announced and a candidate visited the district and interviewed for the position. The candidate was told he would have a two-week trial period, since the board was not scheduled to meet before then. The candidate refused the position on a trial basis, so the contract was prepared, and he accepted by signing the contract. Before the contract was signed by any board members, the new teacher had trouble with his class, and the district refused to approve the contract and terminated him after nine days of teaching. The South Dakota Supreme Court held that no contract existed because the contract had not been signed by the appropriate district representative as required by law. "A teacher shall be employed *only* upon written contract signed by the teacher and by the president of the school board and business manager of the school district."[26] The court did award compensation for moving expenses and housing costs which were incurred because of detrimental reliance on the teaching position. Once again, contracts can only be formed according to the specific standards stated in law.

An Illinois appellate court held that a decision not to renew a superintendent's contract, and to determine that notice of the board's intent not to renew the superintendent's contract should be given, are nondelegable and must be done by the board.[27] Yet the functions of the drafting the written notice and the reasons for nonrenewal and of delivering that notice are ministerial, and therefore, delegable. The hiring and firing of teachers, and determination not to renew contracts, are not delegable because they are discretionary.

Shared Authority With Another Administrative Agency

Occasionally a conflict will arise when one administrative agency seeks to take action which impinges upon the authority of another administrative agency. In our highly regulated world and during a period of rapidly changing circumstances, this conflict over turf is not unusual. Normally, courts resolve these disputes by identifying the particular activity and determining which administrative agency has this problem as a more central responsibility.

Once again, several cases provide recent examples of the types of disputes that arise and how the courts resolve them. One type of conflict is between a municipality operating under home-rule authority and a school district. The general rule is that education is a matter of statewide concern and does not come under the control of a municipality operating under a home-rule charter. A similar rationale was used, for example, when an Illinois appellate court held a school district, in the process of erecting a school building within a municipality, is excepted from the building code of the municipality.[28]

A California court considered this relationship in greater detail. It said that local authorities have the power to regulate a municipal affair. Yet state law prevails over local ordinances with regard to local matters if the subject matter is also of statewide concern. In the event of conflict between regulations of state and local governments, if the state legislation discloses an interest to preempt the field to the exclusion of local regulation, the question becomes one of predominance or superiority, which the courts will decide.

The court determined that state legislation set up a scheme for developing new and improved schemes for financing interim school facilities. This is a matter of statewide interest, and the court held it to preempt the authority of the school district to limit or control development in any additional way.

> The express authority to impose school impact fees and dedication upon developers under [the California statute] is broad in its scope, applies to all schools but narrowly restricts the amount and use of such fees. To permit local entities to impose further broader fees or further burdens on developers for new school construction would be to write into this very comprehensive plan for school finance of new school construction a complicating feature, having statewide ramifications never suggested. Indeed, it could have extremely adverse effect on urban development generally. There is preemption in the legislative scheme we consider here, precluding the county, district and board from collecting the fees from developers for permanent school facilities.[29]

An Ohio board of education voted to purchase electrical energy from a different company than the one supplying electricity to the rest of the municipality. The municipality challenged the authority of the school district to make such a purchase. The Ohio Supreme Court interpreted the Ohio Constitution to grant exclusive authority for the contracting of public utility services to municipalities.[30] Consequently, although there is no explicit limit upon the school district's power to purchase electrical energy, the court held that the grant of authority to the municipality means that school districts are prohibited from contracting for public utility services, absent the express consent of the municipality. To do otherwise would limit the ability of the municipality to obtain the best utility rates for its residents.

Another area of recurring conflict exists between school districts and other governmental bodies responsible for collecting and distributing tax moneys. A recent issue in several states involves allocation of interest earned on tax moneys. A Missouri case provides one example. The allocation of interest money earned between the county collector of taxes and the various governmental bodies is a matter of state law. The Missouri Supreme Court, *en banc*, reaffirmed its position that interest on deposited school funds is payable to the treasurer of the school district, and is not to be credited to the general revenue fund of the county.[31] The court also refused to soften the application of the statute by allowing the county to pay all of its interest expenses out of interest revenue earned on all moneys being held by the county before distribution. No legislative authority existed to charge the interest cost of borrowing tax anticipation warrants back against the districts; therefore, the county collector of revenue was ordered in a *mandamus* action to reimburse the school district this charge for interest.

Two Arkansas cases involved the allocation of the collector's commission and the allocation of certain fees incurred by the county assessor and collector. In one case involving the appropriate allocation of the collector's commission, the Arkansas Supreme Court held that the commission must be based upon expenses related to the collection of tax revenue (not for expenses related to the accompanying sheriff's office).[32] Any extra money would be returned to the local school district.

In a second case, the Arkansas Supreme Court held that the office-rental charge for the county assessor and collector was one for the county rather than for assessor and collector, and could not be recovered from the school district through the county board of education's school tax collection account.[33]

Finally, the Massachusetts Supreme Court held that the mayor of Boston is responsible for keeping the school committee within its authorized expenditure.[34] If the mayor does not, the city is responsible for the additional money necessary to keep the schools open for the statutorily mandated *minima*. The state is not financially responsible.

Other Loci of Authority or Power

Before 1950, school administrators did not need to be knowledgeable about legal matters much beyond what was written in the school code. And these statutes were considerably leaner than they are today. If the actions of these administrators were challenged, they would likely have been based on the question of proper delegation of authority. How times have changed.

The explosion of school law in the last twenty five years is really a story about the expansion of different sources of authority. During this period there has been a marked increase in the applicability of constitutional standards to school matters.[35] In addition, the amount of federal and state legislation affecting schools has increased dramatically.[36] This legislation provides avenues for new resources to encourage equity, and thereby also tends to limit the discretion of boards and administrators in the operation of certain aspects of the school. State departments of education seem to be more aggressive recently in trying to shape school policy. And the expansion of public-sector collective bargaining has caused the contract to be an important legal source in matters of teacher and administrator employment.

To the uninitiated, this cataloging of many different sources of legal authority may appear irrelevant to what an administrator does in the school. In reality, the variety and range of these legal sources are quite important. Different sources of authority carry different degrees of weight. For example, because of the supremacy clause of the federal Constitution,[37] the federal Constitution takes priority if it should come into conflict with state or federal statutes, state constitutions or administrative rules and regulations. These various legal authorities may also be significant because the range of protection can differ widely. The various legal authorities also provide quite different standards of damages. This will be briefly explored in the third part of this chapter.

The remainder of this part will consider the most salient sources of authority—constitutions, state offices of education, federal statutes and contracts. Several examples of case law will be provided to elaborate how the sources apply to school matters.

Written Constitutions

Constitutions are the highest form of law, and take priority over conflicting legal sources such as statutes or administrative rules or regulations. A 1981 South Carolina Supreme Court is instructive on this relationship between the Constitution and statutes.[38] The case dealt with the unconstitutionality of appointed school boards fixing and determining the amount of tax to be levied for school operations as not satisfying the constitutional standard of no taxation without representation. The court stated several principles of law regarding constitutional challenges to statutory enactments that apply to federal as well as state constitutions.

> Our Constitution is not a grant of power, but a limitation on what, absent limitations therein, would be a plenary power in the people or their elected representatives. Accordingly it is not sufficient to find that an act is offensive

> to what may be prevailing notions of the proper sphere for state governments. It is necessary, in order for us to strike down an act of the General Assembly, to find that it offends specific provisions of the state constitution which have limited and circumscribed legislative action in that area.
>
> [A]ll reasonable doubt must be resolved in favor of the constitutionality of the act. If a constitutional construction of a statute is possible, that construction should be followed in lieu of an unconstitutional construction.[39]

Constitutions are usually written sparsely, with few words used to articulate broad principles, thus allowing for considerable latitude for judicial interpretation. In this federalist system, both the federal Constitution and state constitutions provide important sources of authority in the operations of schools.

Federal Constitution

The Fourteenth Amendment of the federal Constitution has had a major impact upon public schools because of the significance of both the due-process and equal-protection clauses and the amount of litigation spawned through their interpretation. In addition, the Fourteenth Amendment has been the vehicle used to apply the protections of the Bill of Rights—the first ten amendments, which were approved to limit the authority of the federal government over individuals—to the state and the administrative agencies of the states, such as public schools. The operative language of the Fourteenth Amendment limits the actions of states: "No state shall deprive any person of life, liberty or property without due process of law." And the same limitation upon denial of equal protection under the law is made upon the state. The significance of this limitation is considerable. Constitutional rights under the first ten Amendments and the Fourteenth Amendment are rights against the intrusion of governmental power, not against individuals; that is, it is necessary for an aggrieved to allege that the constitutional violation occurred under state action. If a private individual committed the wrong, no matter how grievous, there is no cause of action under the Fourteenth Amendment.

An elaborate analysis of what constitutes state action is beyond the scope of this chapter.[40] It is sufficient to understand that public schools, which by definition receive their budget sources from public moneys, do engage in state action and are therefore responsible for complying with the federal Constitution. Private schools are not involved in state action and do not have to meet equal protection or due process standards, for example. Private schools may well decide to meet these standards, but such compliance is not a matter of constitutional compunction.

A few examples of disputes that involve constitutional questions may be instructive. All four disputes involved statutes which were challenged as being unconstitutional.

A Pennsylvania case involved a challenge to an amendment of the state retirement code. The amendment required members of the retirement system to contribute an additional percentage of their salary to the retirement fund. A Pennsylvania Commonwealth Court held that this amendment was an unconstitutional impairment of employee's right to contract.[41] A similar statute in Maryland, when challenged, was upheld as constitutional.[42] Presumably, more litigation will follow.

In *Plyler v. Doe*, a majority of the court held that a Texas statute which withheld from local school districts any state funds for the education of children who were not "legally admitted" into the United States and which authorized local school districts to deny enrollment to such children violated the equal protection clause.[43]

The majority said that this type of discrimination (denial of education) is not rational unless it furthers some substantial goal of the state. A special concern was voiced about the denial of education rather than other types of governmental benefits. The majority held that the reasons given by the state were not compelling:

1) Exclusion of children from school represents a major cost to the children and the nation. "Whatever savings might be achieved by denying these children an education, they are wholly insubstantial in light of the costs involved to these children, the state and the nation."[44]
2) Denial of public school access to children of undocumented aliens will not have the alleged effect of discouraging illegal aliens from entering the country.
3) Savings from denial of this education will likely improve quality of education for remaining students. "In terms of educational cost and need . . . undocumented children are 'basically indistinguishable' from legally resident alien children."[45]

Representation on a New Jersey board of education for a regional high school was determined by the population of the underlying boroughs. When representation was recalculated according to the 1980 census figures, the borough slated to drop from two to one board members challenged the constitutionality of the state statute; it removes military personnel and civilians residing within military installments from being counted in the apportionment. A New Jersey superior court held this exclusion violated the equal-protection clause, and therefore voided this particular reapportionment.[46]

A bond election in Texas, passed by the electorate, was challenged on several grounds: the unconstitutionality of the election statute, the misleading information given about the tax rate and the legal limitation to be placed upon the interest rate. The Texas court of appeals held that the election was constitutional because the district did not enforce the unconstitutional property ownership and rendering requirements of the pertinent statutes when it held the election.[47] The actual rate of interest for the bonds was legal because it fell within the limits of the proposed referendum, even though the rate turned out to be higher than school officials predicted at the time of the election. Finally, the court held that the referendum established that the maximum rate allowed by law for the bonds would be determined at the time of issuance, not at the time of referendum.

State Constitutional Sources

The cases just described demonstrate how significant federal Constitutional standards can be in limiting state statutes, and how state court judges are authorized to interpret the federal Constitution just as federal judges are. When there is disagreement, the U.S. Supreme Court controls. A parallel does not exist for state constitutions. The state constitution is the supreme law of the state, and federal judges do not have authority to interpret state constitutions.

As discussed in a later chapter, there has been a tendency for state courts to become more expansive in interpreting the reach of certain state constitutional language at about the same time that the U.S. Supreme Court has become more restrictive in its interpretation of the U.S. Constitution. In 1974, the U.S. Supreme Court held in *San Antonio School District* v. *Rodriquez*[48] that widely disparate levels of state support for students in different districts (because of widely divergent property wealth among these districts) did not violate the equal-protection clause. Despite this ruling, several state courts examined their respective state school financing formulas under their state constitutional standards and found them wanting. California[49] and New Jersey[50] were in the vanguard of this movement. This use of the state constitution to scrutinize the state school funding formula continued beyond California and New Jersey.[51] Yet, as the following cases indicate, there has been greater reluctance recently by state courts to declare school finance schemes unconstitutional.

The Georgia Supreme Court held that the "adequate education" provisions of the state constitution did not restrict local school districts from doing what they can to improve educational opportunities within the district, nor do they require the state to equalize educational opportunities among districts.[52] The court deferred to the legislature to give specific content to the term "adequate" as used in the "adequate education" provisions of the state constitution.

The Colorado Supreme Court, reversing the trial court, refused to declare the Colorado system of financing public schools unconstitutional.[53] The Colorado Constitution requires the general assembly to establish "a thorough and uniform system of free public school throughout the state." Yet, this requirement does not require absolute equality in educational services or expenditures.

The court of appeals of Maryland reversed a lower-court ruling which held that the Maryland school finance system was unconstitutional.[54] The court of appeals held that the Maryland system of financing public schools violated neither the federal nor state equal-protection clauses, and that the Maryland constitutional clause requiring the General Assembly to establish a thorough and efficient system of free public schools throughout the state, and provide by taxation, or otherwise, for their maintenance does not mandate exact equality of per pupil funding and expenditures among the school districts.

The Michigan court of appeals affirmed the trial-court decision which granted summary judgment to defendants.[55] The court upheld the constitutionality of Michigan's school financing system which, although it provides differential levels of support per student because of differential levels of property wealth behind the students, is not deemed a violation of either education as a fundamental right or equal-protection clauses of the Michigan Constitution.

Another area in which state constitutions matter is in giving substance to the meaning of providing a "free public education." The operational interpretation given to this or similar language (which appears in many state constitutions) varies widely from state to state. Some states interpret this to mean that textbooks are included and must be provided free of charge[56] while other states take the opposite view.[57] Litigation has expanded beyond textbooks. Illinois courts allow charging a rental fee for optional towel use in a high school physical education class[58] and for assessing a lunchroom supervision fee to parents who live close to school yet whose children bring lunches to eat at school.[59] The California Supreme Court, in contrast, held in a 1984 decision that school districts were constitutionally prohibited under the free-school guarantee from charging fees for students' participation in dramatic productions, musical performances and athletic competition.[60] This broad state constitutional language can have a significant impact upon the financial management of a district; this situation varies widely throughout the United States.

State Boards of Education

State boards of education are important sources of authority. These boards differ on where they draw their legitimacy: about half are created by statute and half by state constitution.[61] Even when they are created by state constitutional authority, the state board of education is subject to the commands of the legislature. Consequently, state boards of education derive authority from the state legislators and have authority to do only what is expressly or implicitly delegated to them.

As state boards carry out their perceived responsibilities, disagreements can arise about whether the state board does enjoy such power. Often, such disagreements occur between a state board and a local school district. Two examples provide an insight into how courts analyze such disagreements.

The Illinois Supreme Court, in 1982, had to decide whether the Illinois State Board of Education had authority to promulgate and enforce rules designed to prevent racial segregation.[62] The Illinois legislature passed in 1971 a statute which provided, in part: "As soon as practicable, and from time to time thereafter, the [local] board shall change or revise existing [attendance centers] or create new [attendance centers] in a manner which will take into consideration the prevention of segregation and the elimination of separation of children in public schools because of color, race or nationality."[63] Pursuant to this statute, the state board developed rules to eliminate and prevent racial segregation in schools; these rules were officially adopted by the board in 1976. The most difficult requirement of these rules was that each attendance center in a district not vary by more than 15 percentage points from the minority racial composition of the pupils in all attendance centers. This requirement, in effect, defined nonconformance as a 15 percent plus or minus quota from the district-wide composition of minorities. The state board also identified compliance standards, and noncompliance could lead to nonrecognition and possible loss of state funding. Two school districts could not meet the 15 percent quota in individual attendance centers without instituting busing of students outside the neighborhood schools; they refused to do this, and in fear of losing state aid for noncompliance, the districts challenged the authority of the state board to promulgate such rules.

The state board argued that it enjoyed statutory authority to promulgate such rules because of general language in the Illinois School Code. The Illinois Supreme Court rejected this claim.

> Nowhere in [the statute] is the board granted expressed authority to determine standards for racial desegregation. And the fact that the board may set standards for the 'operation, maintenance, administration and supervision' of schools does not imply the authority now sought. If we were to hold otherwise, it would be difficult to conceive of any regulation which could not be justified under [this statute].[64]

The court also noted that a different statutory section provided a procedure which the board could use in combatting segregation. The 1971 statute did not provide any standard or guidelines governing the board's discretion to enforce the statute. Looking at another section of the School Code, the supreme court was persuaded that the local school district had the authority to decide how to comply with the 1971 statute. The rules of the state board in this area were unenforceable.

A second case (an attempt by the California state department of education to reclaim funds from a high school district) was held to be contrary to the statutory authorization.[65] The high school had been legitimately paid for the vocational students. While the pertinent statutory section prohibited future filing or amended claim for vocational "average daily attendance" funds, it did not authorize the department of education to retroactively recapture funds paid.

A number of other levels of educational agencies exist in various states. But the powers of these agencies are, like those of the state or local boards of education, only those which are delegated to them. A 1983 New Jersey case provides an example of this principle in application.

A county educational services commission was created in New Jersey "for the purpose of carrying on programs of educational research and development and providing to public school districts such educational and administrative services as may be authorized pursuant to rules of the state board of education." This commission had contracted with a private corporation: the corporation was to furnish the services and programs which the commission was obligated to supply to member school districts. The superior court of New Jersey affirmed the trial court in holding that the contract was void: the county educational services commission had no authority to enter into this contact.[66] The legislature gave statutory authority to boards of education to contract with private corporations, but no such authority was granted to the commission. The court applied the general rule that "municipal bodies in the state have no powers other than those delegated by the legislature, and must perform their prescribed activities within the statutory ambit."[67] A public body may make contracts only within its express or implied authority; therefore, the contract was void.

Federal Statutes

Although public education is predominantly supported by state and local taxing sources, the federal government does channel some money to public schools. Since the passage of the Elementary and Secondary Education Act in the mid-1960s, the federal government has supported a number of programs; many are aimed at supporting the education of needy or handicapped students.

Congress derives authority for passing legislation affecting schools under Section 5 of the Fourteenth Amendment, or Section 8 of Article I. Section 5 of the Fourteenth Amendment authorizes Congress to pass whatever legislation may be necessary to realize the objectives of the Fourteenth Amendment. Consequently, Congress could utilize this authority to require school districts to realize the due-process or equal-protection guarantees, and these requirements would not necessarily have to carry financial support. If Congress is to use this source of authority, such authority would need to be clearly understood as the basis of the legislation.[68] The more common source of authority for federal financial support is Article I, Section 8 of the U.S. Constitution: "The Congress shall have power to lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defense and general Welfare of the United States. . . ." Congress decides what expenditures further the general welfare, and the Supreme Court will not interfere with this discretion unless it is "clearly wrong, a display of arbitrary power, not an exercise of judgment."[69] It is currently accepted that improving education is providing for the general welfare.

One contemporary issue which focuses on the federal government involves its attempts to be repaid some of its money, allegedly misspent by the recipient state agency. This issue can best be considered by closely examining two cases.

In a 1983 decision, the Supreme Court articulated the statutory framework for the federal government recovering money received under Title I and improperly spent.[70] Title I of the Elementary and Secondary Education Act of 1965 created a program designed to improve educational opportunities available to disadvantaged children. The money is channeled from the federal government, to the state, to the local school districts. States give assurance to the Department of Education that local districts will spend the funds only on qualifying programs. If federal auditors determine that a state has misapplied funds, a deficiency can be assessed against the state for repayment. Consequently, the determination of the existence and amount of liability is the responsibility of the Department of Education. The states can seek a review of the auditor's recommendation by the education appeal board. If dissatisfied with the decision by this board, the state can appeal the matter to the appropriate United States court of appeals; the court may decide whether the findings of the Secretary of Education are supported by substantial evidence and reflect application of the proper legal standards.

This procedure was followed in an action brought against Kentucky, and the dispute was appealed through the U.S. Supreme Court. The Secretary of Education assessed a penalty against Kentucky for allegedly misspending Title I program money in 1974. The Sixth Circuit Court of Appeals, reviewing this penalty, held that the penalty was not justified because Kentucky's program complied with a reasonable interpretation of the law and there was no evidence of bad faith on the part of Kentucky in the way the money had been spent.[71] This decision was appealed to the U.S. Supreme Court, which reversed the Sixth Circuit.[72] Both the statute and the implementing regulations in 1974 required that Title I funds be used to supplement, not supplant, state and local expenditures for education. The Supreme Court held that the Sixth Circuit had mischaracterized the relationship between the federal funding agency and the recipient state. A demand for repayment is more in the nature of an effort to collect a debt than it is a penal sanction; therefore, an inquiry into "substantial compliance" is meaningless when inquiring into an obligation to repay misused funds where applicable legal standards exist. Nor does the absence of bad faith absolve a state from liability if, in fact, funds were spent contrary to the terms of the grant agreement. The state chose to accept Title I funds, and it did so knowing the conditions which existed for the receipt of such funds. A majority of the Supreme Court was persuaded that the use of Title I funds for "readiness classes" violated the Title I prohibition against supplanting. The court refused to take a doctrinaire position: either one resolving any ambiguities that might exist against the federal government as the party who drafted the agreement, or one allowing the Secretary of Education to rely on any reasonable interpretation of Title I's requirements to determine that previous expenditures violated the grant conditions. Disputes will need to be resolved on a case-by-case basis.

In an accompanying case, the Supreme Court held that the 1978 amendments to Chapter I did not apply retroactively to prevent the Department of Education from recovering money allegedly misspent in earlier years, but which could have been spent legally after the 1978 amendments to the Act.[73] "Neither the statutory language nor the legislative history indicates that Congress intended the substantive standards of the 1978 Amendments to apply retroactively . . . [W]e find no inequity in requiring repayment of funds that were spent contrary to the assurances provided by the state in obtaining the grants."[74]

Much of the federal moneys that go to public schools has been tied to furtherance of civil rights. Title VI[75] prohibits racial discrimination in schools receiving federal money; Title IX[76] prohibits sexual discrimination in schools receiving federal money. The legislation links a penalty of loss of federal money to violation of the protected civil right. Litigation involving these statutes has involved two important points. First, a question can be raised about who has authority to sue under a particular statute. The U.S. Supreme Court recognized an individual right of action to sue under Title IX, allowing individuals the opportunity to sue on their own behalf and not be reliant solely on the will of the administrative agency to press a violation claim.[77]

A second question involves the linkage between the civil rights violation and the federal money involved. In a 1984 case, the U.S. Supreme Court held that violation under Title IX must be program specific to be actionable for the withholding of federal money.[78] A violation is not sufficient to reach any money which the government body may receive from the federal government; for federal money to be subject to penalty, the violation must occur in the same area in which the money is being received.

Contracts

A contract is a significant vehicle that a school district can use to obligate itself to another party in exchange for some benefit. These contracts have the authority of law so long as the subject of the contract falls within the power of the district to undertake, and the contract has been properly approved. These issues were raised in the first part of this chapter, and are taken up in subsequent chapters of this volume which focus on particular activities of the school business official. A 1980 case from Ohio does, once again, underline the significance of obtaining official board approval in order for a contract to be binding.

An Ohio board of education formally adopted a tuition policy for nonresident students and formally accepted two sisters pursuant to the policy. The girls continued as tuition students for that year and the next three academic years, even though the board did not formally approve this arrangement for any of these three years. The board revised its tuition policy that eliminated tuition students for the next year; the sisters obtained an injunction from the trial court on the basis that the superintendent had told them that, when the district entered into the tuition student relationship, it would allow the students to continue until they graduated. The superintendent had come to this conclusion after talking with several board members individually. The appellate court reversed the judgment and dissolved the injunction on the basis that no enforceable contract existed beyond the first year. Pertinent state statute says "[n]o contract shall be binding upon any board [of education] unless it is made or authorized at a regular or special meeting of such board." The representations of the superintendent, even though based on conversations with individual board members, did not, as a matter of law, meet the statutory requirements. No binding contract existed.[79]

As discussed in later chapters, contracts between the school district and its employees are very important; and with more states passing laws authorizing collective bargaining, their contracts become especially important. Increasingly, the employment relationship will be spelled out through the teacher contract rather than through board policy.

An interesting issue involved in teacher contracts is the interplay between the contract and board policy. To what extent can board policy supplement contractual provisions? Two recent cases provide examples of this type of dispute. An Arizona district had a collectively bargained contract with teachers that contained leave provisions and required submission of a "cause of absence" form by the teachers in order to obtain paid sick leave. During the final spring of the contract, negotiations were not going well, and the teachers engaged in a "sick-in." Many absences were due to alleged illness. The superintendent initiated a policy—without prior formal board approval—which required teachers to provide a physician's certificate stating that the teacher was ill; if no such statement was made, the teacher's pay would be docked. The board approved this policy a week later. An Arizona appellate court held that the superintendent's administrative order had no force or effect without prior board approval.[80] The retroactive validation by the board was not effective. The court suggested that the contract controls on this matter, and that the board action has no authority either for retroactive or future application.

In a second case the Illinois Supreme Court had to decide, *inter alia*, the arbitrability of a claim that a board of education had violated a term of the teachers' employment contract.[81] The board had contractually agreed to a sick-leave provision which did not require a physician's certificate after an absence of three days for personal illness. The board subsequently passed a policy which required a physician's statement for any absence of three days for personal illness pursuant to state law. "The school board may require a physician's certificate . . . as a basis for pay during leave after an absence of three days for personal illness." The court held that the state statute did not give the board nondelegable authority to decide on matters of sick leave and thereby make the contractual provision unenforceable; rather, the statute gave the district an option, but the question of whether this policy violated the contractual section on sick leave was properly arbitrable under the grievance procedure.[82]

This interface between board policy and contractual language depends on the specifics of the state collective bargaining statute, the scope of the management-rights clause and mandatory bargaining requirement, and the content of the contractual language in issue. On matters involving employees it is imperative to consider pertinent contractual provisions.

Liability

As discussed in greater detail later in this text, it is important for school administrators to be conscious of various types of authority, or limitations upon authority; not only because they may help explain the scope of the authority or limitation, but also because they have a large impact upon the potential liability of the district. Potential liability varies considerably across several different causes of action. Detailed analysis of this topic is beyond the scope of this chapter, but it will be instructive to suggest a number of dimensions of which the administrator ought to be aware.

First, the availability of certain defenses depends upon the legal cause of action. For example, sovereign immunity acts as a bar against suing the state or state employees in matters of tort. Even though the existence of sovereign immunity differs widely among states, the doctrine is limited to tort liability.

A 1982 Connecticut Supreme Court decision elaborates upon this point.[83] The doctrine of sovereign immunity establishes that states cannot be sued without their consent. Yet, this doctrine does not bar teacher action against a school district for alleged breach of contract.

In Connecticut, town boards of education are agents of the state responsible for education in the towns, but they are also agents of the towns and subject to the laws governing municipalities. Thus, a local board of education is bound by, and may sue or be sued on contract, in the same manner as municipal corporations. Employment contracts remain the function of local communities, and damages from breach of these contracts would be paid by the community, not the state.

Second, the measure of damages varies from one cause of action to another. Punitive damages are available in torts, not available in contracts and available in those constitutional torts actions against individuals;[84] but they are not available in those constitutional torts actions against municipalities, including school districts.[85]

Third, there is important variation regarding personal liability and district liability. Many states have statutes which assume the cost of financial damages and costs of defending the suit if a district employee should be sued.[86] And, in a constitutional tort, a different standard of liability attaches to an individual than to a municipality. Individuals enjoy a good faith, qualified immunity[87] while municipalities do not.[88]

Summary

This chapter has explored the variety of legal sources that interface in the school context. The origin of these various sources can be important to the administrator who wants to understand the scope and boundaries of authority and possible personal liability. These conceptual frameworks are important to the school business official in trying to shape the school district to be responsive to the educational needs in the final years of the twentieth century.

Notes

1. For a more detailed explanation of these sources of legal authority see W. Valente, *Law in the Schools* (1980), pp. 6-13.

2. Federal lunch money, impact aid and support for educating handicapped students are just a few examples of this federal involvement in education.

3. *Tyska v. Board of Educ.*, 117 Ill. App. 3d 917, 923, 453 N.E.2d 1344, 1351 (Ill. App. 1st Dist. 1983).

4. *Dicken v. Kentucky State Board of Educ.*, 199 S.W.2d 977, 981 (Ky. 1947).

5. *Chicago Division, Illinois Educ. Ass'n v. Board of Educ.*, 76 Ill. App. 2d 456, 222 N.E.2d 243 (Ill. App. 1 Dist. 1966).

6. *Virginia v. County Bd. of Arlington County*, 217 Va. 558, 232 S.E.2d 30 (Va. 1977).

7. *Jurva v. Attorney General of Michigan*, 351 N.W.2d 813 (Mich. 1984).

8. For a similar case see *Robinson v. Joint School Dist. No. 331*, 670 P.2d 894 (Idaho. 1983).

9. *East Jackson Public Schools v. State*, 348 N.W.2d 303 (Mich. App. 1984).

10. *Id.* at 306.

11. *Lansing School Dist. v. State Bd. of Educ.*, 116 N.W.2d 866 (Mich. 1962).

12. *East Jackson Public Schools v. State*, 348 N.W.2d 303, 306 (Mich. App. 1984).

13. *Campbell v. Joint Dist. 28-J*, 704 F.2d 501 (10th Cir. 1983).

14. *Kiddie Korner Day Schools v. Charlotte-Mecklenburg Bd. of Educ.*, 285 S.E.2d 110 (N.C. App. 1981).

15. *Heisey v. Elizabethtown Area School Dist.*, 445 A.2d 1344 (Pa. Cmwlth. 1982).

16. *Wilson v. School Bd. of Marion City*, 424 So. 2d 16 (Fla. App. 5 Dist. 1982).

17. *Id.* at 19.

18. *Manges v. Freer Ind. School Dist.*, 653 S.W.2d 553 (Tex. App. 4 Dist. 1983).

19. *Citizens to Save Minnewaka v. New Paltz Central School Dist.*, 468 N.Y.W.2d 920 (N.Y., A.D. 3 Dept. 1983).

20. *Community Projects For Students v. Wilder*, 298 S.E.2d 434, 435 (N.C. App. 1982).

21. *Id.*

22. *Cado Business Systems of Ohio v. Board of Educ.*, 457 N.E.2d 939 (Ohio App. 1983).

23. *Hebert v. Livingston Parish School Bd.*, 438 So. 2d 1141 (La. App. 1 Cir. 1983).

24. *Coalition to Preserve Education v. School Dist. of Kansas City*, 649 S.W.2d 533 (Mo. App. 1983).

25. *Id.* at 537.

26. *Minor v. Sally Buttes School Dist. 58-2*, 345 N.W.2d 48 (S.D. 1984).

27. *Daleanes v. Board of Educ.*, 457 N.E.2d 1382 (Ill. App. 2 Dist. 1983).

28. *Board of Educ. v. West Chicago*, 55 Ill. App. 2d 401, 205 N.E.2d 63 (Ill. App. 2 Dist. 1965).

29. *Candid Enterprises v. Grossmont Union H.S. Dist.*, 197 Cal. Rptr. 429 (Cal. App. 4 Dist. 1983).

30. *Village of Lucas v. Lucas Local School Dist.*, 442 N.E.2d 449 (Ohio 1982).

31. *State ex. rel. School Dist. of Springfield R-12 v. Wickliffe*, 650 S.W.2d 623 (Mo. 1983).

32. *Special School Dist. v. Sebastian County*, 641 S.W.2d 702 (Ark. 1982).

33. *Venhaus v. Board of Educ.*, 659 S.W.2d 179 (Ark. 1983).

34. *Board of Educ. v. City of Boston*, 434 N.E.2d 1224 (Mass. 1982).

35. Since 1950 the U.S. Supreme Court has decided an increasingly large number of cases which affect schools. In the three decades between 1920 and 1949, the Supreme Court decided 15 cases affecting schools while in the decade between 1950-1959, 13 cases affecting schools were decided. During the 1960-1969 decade this rose to 22 cases, and then jumped to 73 for the decade of the 1970s. Thirty-eight cases were decided affecting education for the first half decade of the 1980s.

36. During the 1970s and into the 1980s the Supreme Court has decided a sizeable number of cases affecting schools which are based on statutory claims rather than constitutional claims. For example, during the five years between 1980-1984, 38 cases were decided by the Supreme Court affecting education and they were evenly split between those founded on constitutional claims and those based on statutory claims.

37. Article VI, U.S. Constitution. "This Constitution, and the Laws of the United States which shall be made in pursuance thereof and of all Treaties made, or which shall be made, under the authority of the United States, shall be the Supreme Law of the land; and the Judges in every State shall be bound thereby, anything in the Constitution or Laws of any State to the contrary notwithstanding."

38. *Crow v. McAlpine*, 285 S.E.2d 355 (S. Car. 1981).

39. *Id.* at 356, quoting from *Bauer v. South Carolina State Housing Auth.*, 271 S.C. 219, 226 S.E.2d 869 (S.Car. 1978).

40. *See, e.g., Rendell-Baker v. Kohn*, ________ U.S. ________, 102 S.Ct. 2764 (1982).

41. *AFSCME v. Commonwealth of Pennsylvania*, 472 A. 2d 746 (PA. Cmwlth. 1984). Also see *Pennsylvania Federation of Teachers v. School Dist. of Philadelphia*, 472 A.2d 479 (Pa. Cmwlth. 1981).

42. Alina Tugend, "Federal Judge Clears Way For Changes In Maryland Pension System," *Education Week*, Oct. 10, 1984, at 5.

43. ________ U.S. ________, 102 S.Ct. 2382 (1982).

44. *Id.* at 2402.

45. *Id.* at 2401.

46. *Borough of Oceanport v. Hughes*, 451 A.2d 966 (N.J. Super. Ct. 1982).

47. *Ex Parte Progreso Indep. School Dist.*, 650 S.W.2d 158 (Tex. App. 13 Dist. 1983).

48. *Rodriguez v. San Antonio Indep. School Dist.*, 411 U.S. 1 (1973).

49. *Serrano v. Priest II*, 135 Cal. Rptr. 345, 557 P.2d 929, (Cal. 1976).

50. *Robinson v. Cahill*, 62 N.J. 473, 303 A.2d 273 (N.J. 1983). For later decisions which refined this decision see *Robinson v. Cahill* IV, 339 A.2d 193 (1975); *Robinson v. Cahill* V, 355 A.2d 129 (1976); and *Robinson v. Cahill* VI, 358 A.2d 457 (1976).

51. See, e.g.: *Horton v. Meskill*, 172 Conn. 615, 376 A.2d 359 (Conn. 1976), *Pauley v. Kelly*, 255 S.E.2d 859 (W.Va. 1979); *Washakie County School Dist. No. 1 v. Herschler*, 606 P.2d 310 (Wyo. 1980); and *Dupree v. Alma School Dist. No. 30*, 279 Ark. 340, 651 S.W.2d 90 (Ark. 1983).

52. *McDaniel v. Thomas*, 285 S.E.2d 156 (Ga. 1981).

53. *Lujan v. Colorado State Bd. of Educ.*, 649 P.2d 1005 (Colo. 1982).

54. *Hornbeck v. Somerset County Bd. of Educ.*, 458 A.2d 758 (Md. 1983).

55. *East Jackson Public School v. State*, 348 N.W.2d 303 (Mich. App. 1984).

56. See, e.g., *Paulson v. Minidoka County School Dist.*, 93 Idaho 469, 463 P.2d 935 (Idaho 1970), *Bond v. Ann Arbor School Dist.*, 383 Mich. 693, 178 N.W.2d 484 (Mich. 1970).

57. See, e.g., *Hamer v. Board of Educ.*, 47 Ill. 2d 480, 265 N.E.2d 616 (Ill. 1970).

58. *Hamer v. Board of Educ.*, 9 Ill. App. 3d 663, 292 N.E.2d 569 (Ill. App. 2 Dist. 1973).

59. *Ambroiggio v. Board of Educ.*, 101 Ill. App. 3d 187, 427 N.E.2d 1027 (Ill. App. 2 Dist. 1981).

60. *Hartzell v. Connell*, 201 Cal. Rptr. 601, 679 P.2d 35 (Cal., in bank, 1984).

61. E. Bolmeier, *School and the State Structure* 116 *(2d ed., 1973)*. For additional details about the organization of the state board in individual states see Valente, *Law in the Schools*, 38-39 (1980).

62. *Aurora East Public School Dist. v. Cronin*, 442 N.E.2d 571 (Ill. 1982).

63. *Ill. Rev. Stat.* 1977, ch. 122, par. 10-21.3.

64. *Aurora East Public School Dist. v. Cronin*, 442 N.E.2d 511, 517.

65. *Fullerton Union High School Dist. v. Riles*, 188 Cal. Rptr, 897 (Cal. App. 1983).

66. *Remedial Educ. and Diagnostic Services v. Essex County Educ. Services Comm.*, 468 A.2d 253 (N.J. Super. 1983).

67. *Id.* at 254.

68. For a case which elaborates the significance of the source of authority behind the statutory requirement see *Pennhurst State School* and *Hospital v. Halderman*, 451 U.S. 1, 101 S.Ct. 1531 (1981).

69. *Helvering v. Davis*, 301 U.S. 619 (1937).

70. *Bell v. New Jersey*, 461 U.S. 773 (1983).

71. *Commonwealth of Kentucky v. Secretary of Education*, 717 F.2d 943 (6th Cir. 1983).

72. *Bennett v. Kentucky*, ________ U.S. ________, 53 LW 4332 (1985).

72. *Bennett v. New Jersey*, ________ U.S. ________, 53 LW 4337 (1985).

74. *Id.*, ________ U.S. ________, ________, 53 LW 4337, 4340-41.

75. 42 U.S. Code, Section 2000(d), *et. seq.*

76. 20 U.S. Code, Section 1681, *et. seq.*

77. *Cannon v. University of Chicago*, 441 U.S. 677 (1979).

78. *Grove City College v. Bell*, ________ U.S. ________, 104 S.Ct. 1211 (1984).

79. *Walher v. Lochland City School Dist.*, 429 N.E.2d 1179 (Ohio App. 1980).

80. *Godbey v. Roosevelt School Dist. No. 66*, 638 P.2d 235 (Ariz. App. 1981).

81. *Board of Educ. of Arbor Park School Dist. No. 145 v. Ballweber*, 451 N.E.2d 858 (Ill. 1983).

82. It is not surprising that the arbitrator found this board policy in violation of the contract.

83. *Cahill v. Board of Educ.*, 446 A.2d 907 (Conn. 1982).

84. *Smith v. Wade*, ________ U.S. ________, 103 S.Ct. 1625 (1983).

85. *City of Newport v. Fact Concerts*, 453 U.S. 247 (1981).

86. *See, e.g., Ill. Rev. Stat.*, 122:10-20.20.

87. *Wood v. Strickland*, 420 U.S. 308 (1975).

88. *Owen v. City of Independence*, 445 U.S. 622 (1980).

3

Theories of Modern Management

W. Hal Knight

The perceived role of the school business administrator has expanded considerably in the last half century. No longer does this individual or group of individuals provide simply a clerical, technical function within the framework of school operations. "It is now recognized that decisions relating to curriculum, school organization and personnel are interdependent upon decisions relating to finance, buildings, equipment and supplies."[1] With this change in focus should come a concomitant modification of the concept of appropriate training for persons desiring to assume this important position, but preparation programs continue to be highly task-specific. The purpose of this chapter is to tie the technical aspects of the position to the school business manager's need to better understand the overall character of the organization within which he or she works.

To accomplish this, appropriate theories of management are identified which can provide a fundamental conceptual knowledge base with regard to organizations and their management. This base is needed if the school business administrator is to understand the school organizational setting and its influences on the day-to-day operation of the educational process. Of particular concern are those aspects of organizational theory and behavior which deal with organizational structure, climate, leadership style and organizational development.

Organizational Governance and Structure. The school business administrator must know the ramifications of working in an organization with a bureaucratic structure, utilizing his or her knowledge of the advantages of this operational system (expertise, rationality, compliance, coordination, continuity and incentive) to offset the known disadvantages (boredom, lack of morale, communication blocks, rigidity and conflict between achievement and seniority). Since the school business administrator is often directly responsible for personnel functions of classified and non-instructional personnel, a knowledge and understanding of these organizational characteristics is imperative.

In addition to the common traditional assumptions made about organizations, though, the school business administrator needs to be aware of other possible ways of viewing the school organization. To this extent, the concept of "loosely coupled systems" is most appropriate.[2] Loose coupling suggests that organizational units are responsive, one to the other, but that each preserves its identity and some evidence of its separateness. Understanding concepts such as these can strengthen the school business administrator's ability to discern why at times he or she functions independently of the superintendent; at other times, or on other issues, he or she does not. The effective school business administrator is able to unravel the mysteries of his or her school operations in a manner that allows the best possible job.

Organizational Climate. The internal characteristics which distinguish one school organization from another and color the behavior of people in it constitute its organizational climate. This climate is, roughly speaking, the personality of the school system. Since climate contributes significantly to how the school system defines its goals and operating philosophies, it is a necessary part of the training of school business administrators. As part of the management team, the school business administrator must be able to assess the climate not only of his or her particular part of the system, but also understand the ramification of climate for the contacts which he or she has outside of his normal operating sphere. Three major conceptualizations of climate relating to the school business administrator will be discussed. Climate can be defined 1) by the degree to which interaction occurs between employees (open to closed), 2) by the managerial system employed (exploitative-authoritarian to participative) or 3) by the extent of development and control present.

Organizational Development. Many of the tasks facing school business administrators are at least tangentially related to organizational development and the implementation of planned change. Each time a purchasing system is implemented, or reporting procedures change, or another stage in the computerization of records occurs, a planned change has been initiated. Organizational development provides a systematic, philosophical approach to the matter of dealing with organizational problems. By employing this proactive, data-gathering, problem-solving approach, the school business administrator can be more knowledgeable of effective ways of effecting change in his or her organizational setting. Further, he or she has the opportunity to provide information for other school leaders.

Leadership. As an intergral part of the school district's administrative team, the school business administrator must take a leadership role in the affairs of the organization. He or she must also know appropriate models or theories of leadership to be able to develop a program of leadership development for the non-instructional staff. Central is a basic knowledge of the major ways in which leadership can be addressed: trait theory, leader behaviors and situational or contingency approaches. Since he or she is often involved with the selection of personnel and of professional development programs, the contemporary school business administrator should be aware of the leadership training models that have been successfully marketed, such as Blake and Mouton's Managerial Grid[3] and Hersey and Blanchard's Situational Leadership.[4] By becoming familiar with theories of leadership, the school business administrator can better define his or her philosophy in a manner which will be both meaningful and will lead to a more consistent application of authority.

Given the complexity of our school organizations and the problems that beset them, it is apparent that school business administrators must come to view their roles as greater than the functions, duties and responsibilities assigned to them. They must become leaders in a larger sense, not relegated to dealing simply with transportation, food service or accounting functions. They must understand every part of the educational enterprise. To do this, school business administrators must be aware of less technical aspects of their position and gain a better sense of the organization. Part of this increased awareness can come only through an increased emphasis on the global organizational problems addressed by theories of management.

Management Theory Development

The study of management theory is not the study of isolated activity. Rather, the theories which have meaning for today's administrator have evolved over a number of years. Our present-day concepts about how organizations, especially schools, operate is the end result of countless investigations and theory testing. Concomitantly, the theories which are presented here, while reflecting the "state of the art," should not be interpreted as the final view of the subjects they address. Past theories have been modified or even abandoned in the face of new information; so also may these be abandoned. Management science, like its companion disciplines, is constantly seeking to improve. To better establish where the profession is, it is appropriate to discuss where it has been.[1]

Management theory has had five fairly well-defined stages: historical, scientific management, human relations, behavioral science and systems theory. The time periods and major theorists associated with each period are presented in Table 3:1.

Table 3:1: Stages in the Development of Management Thought

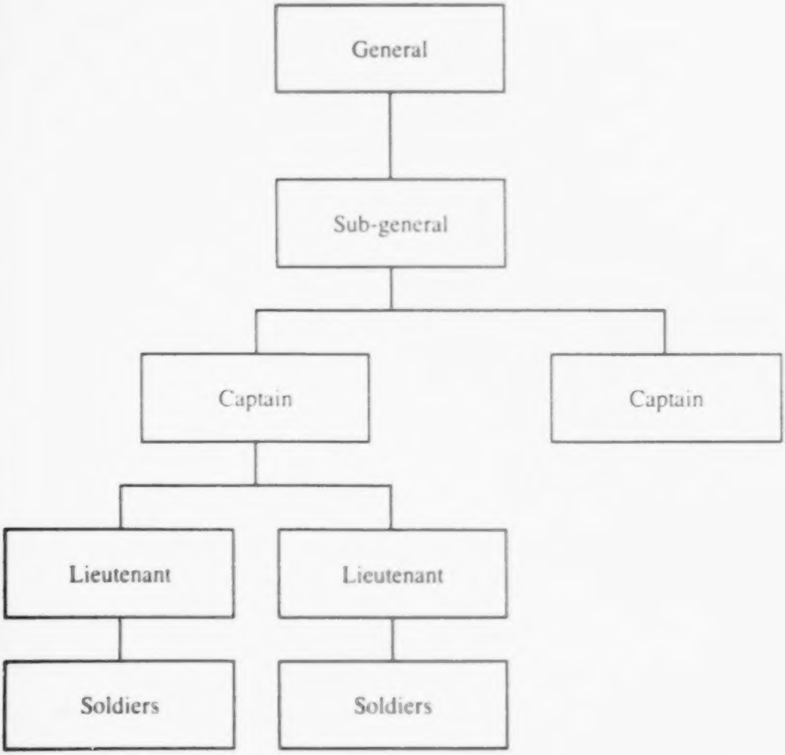
Period	Major Theorists	Timeframe
Historical	none	pre-1900
Scientific Management	Frederick Taylor	1900-1930
	Henri Fayol	
	Max Weber	
Human Relations	Elton Mayo	1930-1950
	Fritz Rothlisberger	
	W. J. Dickson	
Behavioral Science	Herbert Simon	1950-1970
	Douglas McGregor	
	Rensis Likert	
Systems	Ludwig von Bertalanffy	1960-present
	Kenneth E. Boulding	
	Jacob Getzels	
	Egon Guba	
Contemporary	James March	1975-present
	Karl Weick	
	Johan Olsen	

Historical. Although the development of formal management theory is usually traced only as far back as the start of the twentieth century, the antecedents extend to the earliest of times when man first began to associate in tribal units. These organizations were much simpler than the ones with which we are familiar. They were managed by a figure of authority (a leader) who often held a religious or quasi-religious position. These systems worked efficiently until they became too large for one person to direct, or until the tasks to be performed by the organization become more complex.

Characteristic of these problems was that of Moses.[*] According to accounts of the time, he found that he was not able to adequately govern the Israelites during the Exodus because of the large numbers of people (the twelve tribes) and the complexity of the task (finding and securing the "promised land"). Moses altered his governmental structure so that he no longer was required to render judgment on all phases of the Israelites' life; rather, he delegated authority to rulers of tens, hundreds and thousands.

This hierarchy of command was the chief characteristic of pre-twentieth century organizations as shown in Figure 3:1. The Roman army utilized it through its system of sub captains (lieutenants), captains, sub-generals and generals. Feudal systems reflected this basic structure with several vassals pledging allegiance to one particular ruler, each of whom had numerous serfs under his command, as did the Catholic Church with its pope, archbishops, bishops, parish priests and parishioners. Even toward the end of the nineteenth century, most industrial concerns reflected the same system of management: several managers reported directly to the president of the company, who was often also the owner. Each manager, in turn, had a group of workers assigned to him.

Figure 3:1: Traditional Organizational Structure.



Whereas the initial movement away from a single ruler/leader manager (who made all the decisions for a group) was related primarily to the problems associated with managing large numbers of people, the second phase reflected an increased complexity of society and industry. As the technologies used in industrial concerns became more complex at the end of the nineteenth century, the traditional, hierarchial form of organization became less efficient. These traditional organizational patterns could not effectively deal with either the numerous interdependencies (both of goods and services) which arose from the expansion of technological knowledge on the industrial side, nor the increasing social interest role being assumed by governmental organizations. Although it was apparent that these traditional methods of organizing were ceasing to be effective, it was not until late in the nineteenth century that management theorists began to suggest tives to these structures.

Scientific Management. The last few decades in the nineteenth century saw the accumulation of vast amounts of resources in the United States and in Western Europe. The development of electrical power, along with the machinery which could effectively utilize it, provided the potential for transforming the industrial capacity of the western world. However, a major weakness was "in the crude forms of developing, organizing, controlling and administrating this mass of resource efforts."[7] The first major movement in modern management thought, scientific management came about in response to these problems.

Three theorists exemplify the predominant thrust of this movement. They are Frederick W. Taylor (1856-1915), often called the "Father of Scientific Management;" Henri Fayol (1841-1925); and Max Weber (1864-1920). Although these were not the only persons involved in exploring the intricacies of organizations during the first third of the twentieth century, each is associated with specific concepts which survive in contemporary management.[8]

Frederick Taylor devoted his life to determining methods for bolstering the productivity of individuals in industrial organizations. Of Quaker-Puritan descent, that background is reflected in his belief that each person should perform at his maximum capacity. Taylor became intrigued with improving the procedures which laborers used to perform their tasks as a method of improving overall performance. Beginning in 1881, at Midvale Steel Company in Philadelphia, he began a series of time and motion studies geared toward developing what he referred to as the "one best way" of performing each task of the manufacturing process. The concept that management, rather than workers, could best determine the most effective method for accomplishing a task was inventive.

The basic principles of scientific management were:

1) the development of a science for each element of a man's work to replace the rule-of-thumb method (i.e., task management)
2) scientific selection and training of the workmen
3) management ensurance that all workers use scientific methods
4) equal division of work between management and workers.[9]

Although Taylor's devotion to time and motion studies became a hallmark of the scientific management movement, some of his ideas were ignored for half a century.[10] For instance, Taylor advocated the realignment of organizational structures so that there would be "functional foremen" for each part of a worker's task. These individuals would be performance experts for that particular element of the process. Any involved process would involve a number of these functional foremen; they would take the place of the traditional foreman who oversaw the entire process. This concept resurfaced in a related form nearly sixty years later with the idea of "matrix" management.[11] Additionally, Taylor's concept that each worker could be a "first class man" in some aspect of a company's process was not accepted at the time, but it foreshadows the current concept of job-matching.

Henri Fayol, a French steel- and coal-mining executive, is credited with first defining a set of principles by which organizations should be managed.[12] These principles were derived from his own experience as a manager. Unlike Taylor, he viewed the problems of the organization from the top, down. It was Fayol's belief that his fourteen principles provided the basic foundation for effective management:

1. Division of work
2. Authority
3. Discipline
4. Unity of Command
5. Unity of direction
6. Subordination of individual interests to the general interest
7. Remuneration
8. Centralization
9. Scalar chain (line of authority)
10. Order
11. Equity
12. Stability of tenure of personnel
13. Initiative
14. Esprit de corps.[13]

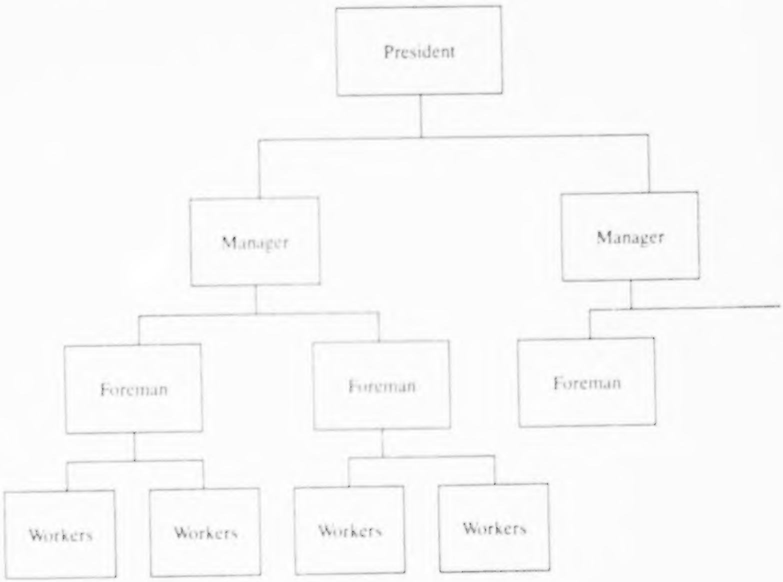
Fayol's definition of *division of work* was similar to previous concepts of specialization of labor, such that output would be increased through the reduction of waste and through streamlined job training. Both Fayol and Taylor believed that specialization applied to the technical aspects of industry and to management. *Authority* was differentiated between that which was formal (held by virtue of office or position) and that which was personal (held by virtue of "intelligence, experience, moral worth, ability to lead, past services, etc").[14] It was defined as "the right to give orders and the power to exact obedience."[15] *Discipline* was, according to Fayol, essential to the success of the organization, but it was obedience based upon respect, not fear. *Unity of command* ran counter to Taylor's concept of the functional foreman. Fayol maintained that an individual cannot be expected to work effectively if he were responsible to more than one individual.

The idea that the individual's interest must be subordinated to the interest of the organization attempted to end the inevitable conflict which arose whenever individuals or groups attempted to override an organization's goals. One of Fayol's least-well-articulated principles was that of *remuneration*. He endeavored to explain a variety of systems that might be used to determine compensation (such as day wages, piece rates, bonuses and profit sharing), but he concluded that the factors involved were too variable to establish a rule. Instead, he called for compensation which made "the personnel more valuable."[16]

The concept of *centralization* espoused by Fayol became a central tenet of management thought. He expressed the centralization-decentralization continuum as follows: "Everything which goes to increase the importance of the subordinate's role is decentralization; everything which goes to reduce it is centralization."[17] The objective in determining the appropriate level of centralization was that which provided the "optimum utilization of all faculties of the personnel."[18]

Scalar Chain described the linking of superiors within an orgnization from the top to the bottom. It outlined the appropriate communication and decision-making channels within the organization. To alleviate the potential for roadblocks in the communication process, Fayol developed the concept of a "gangplank" or bridge between employees at the same hierarchial level within the organization (Figure 3:2). These linkages were to facilitate the exchange of information between units of the organization at the same levels so that efficiency would not be lost in travelling up and down the chain of command.

Figure 3:2: Fayol's Gangplank or Bridge.



Order required that everything within the organization have a specific place and/or function, and that these were constantly maintained. The issue of employee relations was addressed through the concept of *equity*. Standards for personnel planning were included under *stability of tenure*, such that the organization could respond to needs for human resources. The principle of *initiative* encouraged all employees to display eagerness in all of their work. Finally, Fayol advocated a strong sense of what we might now call corporate identity: sense of unity between workers and management resulting in a harmonious organization.

These fourteen principles were designed to be used as the basis for building better organizations. Furthermore, they have provided the underpinnings for much of management theory in the twentieth century.

Max Weber is the last of the theorists to be discussed as part of the scientific management movement.[19] Unlike both Taylor and Fayol, Weber was not a manager; rather, he was an intellectual. He had seen the growth of large-scale organizations in Germany and predicted a need for a more formalized set of procedures for administrators which he conceived as "bureaucracy," an ideal form of organization. In effect, Weber had analyzed, codified and modified descriptions of the major extant organizations of his day: the Catholic church and the Prussian army.

Bureaucracy was promoted as the most efficient form of organization, the one which could most effectively be used by complex organizations, and the most humane.[20] Bureaucracy was also an attempt to deal with the personal subjugation, nepotism, cruelty, emotional vicissitudes and subjective judgments which characterized management in the early 1900s.[21]

Weber's ideal bureaucracy was defined by six characteristics. It required a well-defined *hierarchy of authority* based on rational-legal tenets. Previous concepts of authority had centered on such traditional lines as the source of authority. This hierarchy was one of "offices," not persons. Second, there was to be a clear *division of work* wherein each employee was to be trained in a limited, specific task which would be done repetitiously to aide in accuracy. Third, there was to be a system of *rules and regulations* covering the rights and duties of position incumbents, thereby increasing efficiency since there would be no need for "new" solutions to old problems. Fourth, there was to be a set of *uniform procedures* for dealing with the work situation. Fifth, *impersonality* in interpersonal relationships would ensure that decisions made in the organization would not be influenced by the political, social and economic connections of the client. Last, selection for employment and promotion in the organization would no longer be based on tradition or birth but, rather, on *technical competence*. Employees, then, would come to their positions as a result of examinations, training and education.

The scientific management movement was not influential in the educational setting until about 1912, when a series of articles in the popular press attacked education as inefficient.

In response to these accusations the schools instituted efficiency ratings for teachers and, later, administrators.[22] Additionally, the incorporation of school surveys to determine the relative efficiency of different schools also responded to this movement.[23] Many schools at the time began to operate a "platoon" system, whereby classes were operated on a tight schedule with classes moving from subject to subject in platoons, thereby reducing the inefficiency of having teachers teach different subjects.

Human Relations. The third phase in the development of management thought is often referred to as the human-relations phase. As is often the case, there is no sharply defined ending of the scientific management era and beginning of the era of human relations. However, the antecedent of the human-relations movement is generally placed in a group of studies conducted at the Hawthorne Works of the Western Electric branch of American Telephone and Telegraph in Cicero, Illinois, beginning in 1924.[24] The primary forces in the development of this thrust were Elton Mayo, Fritz Rothlisberger and W. J. Dickson.[25] Mayo had been an outspoken critic of Taylorism, suggesting that "its chief defect is that workmen are not asked to collaborate" in developing its procedures.[26] He, Rothlisberger and Dickson were integrally involved in the development of the Hawthorne studies.

The first of these experiments (the Illumination Experiments, 1924-1927) attempted to determine the relationship of quality and quantity of lighting to the efficiency of workers, measured by their output.[27] After three years of study, during which the amount and intensity of light was systematically altered and monitored, it was ascertained that no correlation between the amount of light and productivity existed. The investigators were intrigued with the idea that psychological factors had intervened, and proceeded with three additional sets of studies over the next five years.

In the Relay Assembly Test Room study (1927-1932), the researchers again studied the relationship between physical conditions of work and productivity. Output increased steadily over the entire period of the study, leading the researchers to reinforce their earlier conclusion that there were no simple correlations between output and physical conditions. At this point it became evident "that this area of employee reactions and feelings was a fruitful field for industrial research."[28]

The final two studies addressed those issues. In the Interviewing program (1928-1930), the investigators set out to explore employee attitudes about their jobs, supervision and working conditions. From this study it was concluded that it was important for employees that management was concerned about them; therefore, attitudes could not be removed from the context of the workplace, as the scientific managers had maintained. The last study (Bank Wiring Observation Room, 1931-1932) not only reinforced the preceding studies with regard to the importance of relationships between supervisors and workers, but also established the power of the informal group in the workplace.

Rothlisberger concluded that "workers are not isolated, unrelated individuals; they are social animals and should be treated as such."[29] It is from this perspective that organizations were first seen to have two distinct parts: the technical organization with its tools, machinery and physical surroundings; and the human organization.[30]

Mayo, Rothlisberger and others of the human relations movement advocated several organizational features to facilitate this relationship. Primarily, they suggested that work units become self-regulating and that from this self-regulation would come increased productivity.

In school administration the response to the human relations movement was "evident in a wave of writing and exhortation on democratic administration."[31] This view led to the promotion of participatory management between teachers and administrators, democratic classrooms where the teaching was student-initiated and a variety of programs designed to facilitate individual development.

Behavioral Science. The overlap between phases in the development of management theory is even more pronounced when one examines the behavioral-science approach. This thrust is a melding of the perspectives of psychology, sociology, political science and economics to the problems of integrating the social relationships advocated by the human relations school with the structural emphasis of the classical theorists.

Since much of this focus is on the relationship between the formal and informal groups extant within a given organization, the roots of this movement are often traced to Chester Barnard, one of the first to present definitions of the two organizational forms.[32] Formal organization was "cooperation among men that is conscious, deliberate and purposeful."[33] Conversely, the informal organization was the amalgamation of all the "personal contacts and interactions and the associated groupings of people" which were not governed by the formal organization.[34]

Herbert Simon expanded upon Barnard's organizational insight in his pioneering contribution to organizational theory, *Administrative Behavior.*[35] Simon's concern was primarily with the process of decision making in complex organizations; he saw this as the major area in which individuals surrendered autonomy to the organization. Therefore, decisions were not best thought of as a function of the scalar chain advocated by the scientific management school; instead, there were "composite" decisions. Furthermore, Simon, in collaboration with James March, provided the first serious attempt by researchers to specify propositions of management theory in a testable form—a hallmark of the behavioral scientist.[36]

Two other major contributors to this movement bear mentioning as pioneers: Douglas McGregor[37] and Rensis Likert.[38] McGregor challenged the classical assumption that authority is the central, indispensable means of managerial control. He suggested, rather, that authority is just one of many means. Furthermore, traditional assumptions about control carried with them assumptions about human nature. Traditional theory, which he labeled Theory X, assumed that people disliked work and had to be directed and coerced to perform. He proposed a different set of assumptions based partially on Maslow's hierarchy of needs.[39] These assumptions, which be labeled Theory Y, held that people 1) desired work as a natural activity; 2) will exercise self-direction and self-control; 3) will seek responsibility; and 4) will be creative. McGregor's theory was individually oriented; Likert advocated a prescriptive theory for organizations. His System 4 has three key elements: "1) the use by the manager of the principle of supportive relationships, 2) his use of group decision making and group methods of supervision, and 3) his high performance goals for the organization."[40] The principle of supportive relationships essentially advocates that all organizational processes will be seen by each individual as being supportive of his or her sense of personal worth.

Systems. As a theory of management, the systems approach seeks to wed behavioral science views with the strictly mechanistic views of scientific management so that the organization can be considered an integrated whole, the goal of which is to achieve overall system effectiveness while harmonizing the conflicting objectives of its components. Much of the literature emanating from the systems theorists has its roots in the work of Ludwig von Bertalanffy[41] and the cybernetics movement of the 1940s, although systems theory did not surface in the management literature until the 1960s. Bertalanffy, a biologist, suggested a commonality among sciences: they were primarily oriented toward the study of a whole (i.e. organism). Organisms strive for a "steady state," or equilibrium; all systems are open in that they are both affected by and have effects upon their environments. The cybernetics model added the concept that systems could be designed to control themselves through a "feedback" loop which would provide the system with the information necessary to adjust to adverse stimuli in the environment.

Contemporary. One interesting attribute of management theory is that very little of it has been totally abandoned. Management theory, instead, has continued to build incrementally upon its foundation. Modern managers must take what they can find of benefit from the scientific managers, the human relations experts, the behavioral scientists and the systems theorists to develop a useful response to the problems of today's organizations. Contemporary management theory is indeed dynamic, integrative and eclectic.

Organizational Structure

Organizations are collections of individuals working toward a common goal. Organizational structure provides a means for attaining the objectives and goals of the organization. The structure must suit the needs of the particular organization, achieve consistency among the various aspects of the organization and be adaptable over time.[42]

Structure assists in the attainment of objectives in three main respects. First, it contributes to the successful implementation of plans by formally allocating people and resources to the tasks which have to be done, and it provides the mechanisms for their coordination. This is the basic organizational structure: it includes such artifacts as organizational charts, job descriptions and corporate charters. Structure, secondly, makes it possible for the organization to indicate to its members clearly and concisely what is expected of them by means of various operating mechanisms. These include operating manuals, standing orders, reward systems, planning schedules and so on. Thirdly, structure encompasses provisions for assisting decision making and its associated information-processing requirements through the establishment of committees, advisory boards and the like.

There are five major components of an organization's structure:

1) Allocation of tasks and responsibilities. Through the process of designating tasks to individuals the formal organization defines important superior-subordinate relationships. Methods of accomplishing work and establishment of job specialization are part of this component.

2) Formal communication systems. The definition of who reports to whom has two effects on structure. First, it establishes the levels within the hierarchy and, second, it serves to define spans of control. Additionally, these insure the effective communication of information, integration of effort and participation on the decision-making processes.

3) Departmentalization. Through this process, individuals are grouped together into sections or departments based on similar characteristics, such as the type of work performed or location. These departments are further grouped into divisions or larger units culminating in the total organization.

4) Delegation. Authority within the organization is delegated by means of the structure. It provides procedures whereby the use of discretion is monitored and evaluated.

5) Evaluation. Structure provides the means through which provisions can be established for performance appraisal and reward systems which are used to motivate employees.[43]

Deficiencies in any of these components can cause serious problems in the organization. Motivation and morale may suffer if decisions are viewed as inconsistent, due to the absence of standardized rules; if employees perceive that they have little responsibility or opportunity for achievement, due to poorly designed decision-making systems; or if there is a lack of clarity as to what is expected of people and how performance is to be evaluated. Decision making may be delayed or lacking in quality because of a lack of appropriate information or because no adequate procedures for evaluating the results of similar decisions in the past exist. Conflict and lack of coordination of work tasks may arise, due to conflicting goals which have not been assimilated into a single set of objectives. The organization may not respond innovatively to changing circumstances because it has no specialized jobs dealing with forecasting and assessing the environment. The organization may fail to ensure that innovation is a major activity of the organization, or there may be inadequate coordination between the part of the organization identifying the changing market conditions and the researchers working on technological solutions. Lastly, costs may rise sharply, especially on the administrative side because there is an increasing ratio of "chiefs" to "indians," or there is an excess of procedures and paperwork which distracts peoples' attention from productive work.

In establishing the structure of an organization or subunit, a number of questions must be answered. Should jobs be broken down into narrow areas of work to promote efficiency, or should the degree of specialization be minimized to simplify communication and to offer employees greater scope and responsibility in their work? Should the overall organization be tall or flat in terms of its levels of management and spans of control? What approaches should management take to maintain adequate control over the work to be done? Should decision making be centralized or decentralized? The answers of a particular organization to these questions establish the structural nature of the organization.

As seen in the review of management theory, questions associated with the structural properties of organizations were those first addressed by organizational theorists. It is generally accepted that the predominant structural form used in schools is that of the Weberian bureaucracy. The characteristics of the bureaucracy have been discussed earlier. Much has been written about the characteristics and effects of schools as bureaucratic organizations; the purpose here is to discuss briefly the major dysfunctions of the bureaucratic model and to introduce some contemporary explanations of the structure of schools.[43]

Although each of the five major characteristics of the bureaucratic model was proposed to remedy problems extant in organizations, it is apparent that there are detrimental aspects of the characteristics.[44] The division of labor was proposed as a method of increasing expertise of persons in an organization, yet it results in boredom when employees tire of doing repetitive, unchallenging tasks. The impersonal orientation which was advocated to establish rational, impartial treatment of clients by employees also can contribute significantly to a lack of morale within an organization when employees feel isolated from one another. Communication blocks often arise from the formal hierarchial structure of bureaucracies, although the structure was advocated as a method of ensuring compliance and coordination to improve efficiency. However, efficiency is reduced, not increased when communication blocks contribute to poor decision making. The career orientation of the bureaucrat was encouraged as an incentive to override the patronage system of the past, yet such orientation often results in a conflict between the employee's need to achieve and a need to maintain seniority. Finally, one of the hallmarks of the bureaucratic model (standardized rules and regulations), while designed to ensure continuity and conformity in decision making, often results in rigid interpretations and goal displacement—from that of the organization's general goals to the simple matter of "following the rules."

As these weaknesses in the model became increasingly apparent, a number of contemporary theorists attempted to provide different interpretations of the structural properties of organizations, especially schools. These attempts have focused primarily on the question of whether organizational structures are or can be rational. The concept of rationality underlies much of traditional management theory. If organizational structures cannot be joined to goals and objectives, what can be used to explain the relationships?

Charles Bidwell first alluded to the "structural looseness" of schools in describing the teacher in the workplace.[45] He maintained that teacher autonomy was reflected in the structure of the organization, its looseness arising from the teacher's independence in the classroom. This independence abrogates the concepts of close supervision associated with the bureaucratic model.

James March and Johan Olsen suggest that there are substantial differences between school organizations and other types of bureaucracies; that is, schools are "organized anarchies."[46] March and Olsen have been joined by Karl Weick,[47] John

Meyer and Brian Rowan[48] and others[49] who see schools as organizations "with ambiguous goals, unclear technologies, fluid participation, uncoordinated activities, loosely connected structural elements and a structure that has little effect on outcomes."[50] These assumptions underpin most of the "loose coupling" literature.

Weick defines "loose coupling" as a situation where "the coupled events are responsive, but that each event also preserves its own identity and some evidence of its physical or logical separateness."[51] In school settings, the business manager's office may be loosely coupled to the assistant superintendent for curriculum's office. Within the school system, there is agreement that the offices are somehow interrelated but simultaneously separate. Decisions made within one may affect the other but with little overlap in function.

There are a number of potential functions that Weick associates with loose coupling.[52] Loose coupling allows some aspects of the organization to persist, even during times when they are opposed by the organization's constituency. Because of the relative independence of subunits, loose coupling allows the organization to be more aware of and responsive to its environment. For instance, it can facilitate a localized adaptation of an innovation such as happens when one group of employees goes on "flex" time as a test of the advantages, without the need for the entire organization to adjust. Loose coupling can also facilitate novel solutions to specialized problems, and provide self-determination for employees.

Meyer and Rowan also address the issue of loose coupling in educational organizations.[53] Their thesis is that both loose and tight coupling occur: loose coupling with regard to evaluation procedures, curriculum and technological innovations and the authority which administrators are able to exercise over instruction. They see evidence of tight coupling, too, especially in areas which they term "ritual classifications."[54] Ritual classifications are linked to the "credentialling and hiring of teachers, the assignment of students to classes and teachers and scheduling."[55] In these areas the schools exercise tight control. Furthermore, Meyer and Rowan see areas of tight coupling as an essential part of the societal understanding of the role of the school. They contend that schools maintain tight control over these segments of their operation because of environmental restraints that are not present with regard to the process of instruction.

Perhaps more challenging than Meyer and Rowan's concept of coupling are their conclusions regarding the nature of formal organizational structure. They maintain that "the formal structure of an organization incorporates (and in some respects *is*) an environmental ideology or theory of the organization's activity."[56] Therefore, according to Meyer and Rowan, the formal structure changes in response to environmental changes, not because of a planned, rational reason. For example, given this interpretation, the advent of the office of school business manager might best be explained as stemming from a societal (environmental) demand rather than as a rational solution made within the organization to improve efficiency.

Organizational Climate

Although the human relations and behavioral science approaches to management had focused on assessing organizational impacts upon the individual, there also arose an equally focused concern with the total organization. Researchers, beginning with the Hawthorne studies, had observed that different organizational structures and procedures had differing effects on the workings of the organization. Some work settings were characterized by managers who were friendly and easy-going, whereas others were characterized by overbearing, authority-driven individuals.

Attention turned to the possible effects of the interactions between people in the organization and the organizational environment. Halpin and Croft probably best described organizational climate when they used the analogy that "personality is to the individual what 'climate' is to the organization."[57] This concept is linked strongly to other aspects of management theory presented here: structure, leadership and change.

Although there has been considerable confusion about how climate attributes and variables should be defined,[58] there is little doubt that climate affects the organization's ability to function effectively. It is only to the extent that the person-environment interaction is a constructive one that organizations can successfully function. These interaction processes encompass the major functions of the organization including communication, decision making, leadership, coordination, control and evaluation.

A number of methods have been devised to ascertain the climate of an organization. Many of these are intuitive instruments with little value for concentrated assessment. There are three well-tested instruments, however, each reflective of a particular theoretical base, which are appropriate for use in school settings. These are the Organizational Climate Development Questionnaire (OCDQ) developed by Andrew Halpin and Don Croft, The Profile of a School (POS) developed by Rensis Likert and Organizational Climate Index (OCI) used by George Stern.[59]

Open vs. Closed Climates. Halpin and Croft were the first researchers to delve into the organizational climate of schools. Their instrument, the Organizational Climate Description Questionnaire (OCDQ), utilized the perceptions of individuals within the organization to describe the climate. They maintained that since climate was the result of individual and organizational interaction that the most appropriate judge of the relationship was the members of the organization.

The OCDQ was developed in questionnaire form having 64 items with each item representing one of the eight climate factors. The climate factors were grouped into two categories, those items which described teachers' perceptions of the teachers in the school and those which described the collective views of teachers with regards to the principal.

1) Teachers' Perceptions of Teachers:

Disengagement: the psychological and physical distancing from one another and the school as a whole as expressed in the degree to which teachers are involved in the goals of the school.

Esprit: the apparent morale, spirit and liveliness of the group.

Hindrance: the burdensomeness of tasks and responsibilities unrelated to teaching.

Intimacy: the degree to which teachers share their private lives with one another.

2) Teachers' Perceptions of Principals:

Aloofness: the psychological and physical distance that the principal maintains from the teachers including degree of formality.

Consideration: the concern shown for the staff as individuals, reflected in kindness and humanitarianism.

Production emphasis: the extent to which the principal is an active supervisor who is directive and insensitive to teachers reactions.

Thrust: the presence of an active, energetic role model.

Each of these subscales is conceptually independent, yet there are parallels in concept between aloofness and disengagement, production emphasis and hindrance, thrust and *esprit*, and consideration and intimacy.

From these scales Halpin and Croft developed six major organizational climates on a continuum ranging from "open" to "closed." The middle climates (autonomous, controlled, familiar and paternal) do not have the robustness of the anchors."[40] An open climate was characterized by high scores on esprit, thrust and consideration and low scores on hindrance, disengagement, production emphasis and aloofness. The high levels of thrust and esprit coupled with the low level of disengagement suggest a school setting where the principal is an active, vigorous role model for teachers who accept his or her leadership and who work cooperatively toward organizational goals. Conversely, in a closed climate thrust and esprit are low and disengagement is high. Schools with this climate have staffs who do little more than show up for work. They are neither involved nor concerned with the organizational goals and are headed by a principal who cannot provide effective leadership.

Studies using this instrument have provided inconclusive and conflicting data with regard to the relationship between school climate and student achievement.[41] However, there has been little research completed with regarding the relationship between teachers and principals using this model.

Exploitative-Authoritarian vs. Participative. Likert presents one of the most comprehensive of all theoretical management frameworks within his concept of four basic systems of organizational management. He ascertains organizational climate through this framework by assessing perceptions of six characteristics of organizations: leadership styles, motivational strategies, communication processes, decision-making strategies, goal-setting activities and control mechanisms.

System 1 (Exploitative-Authoritative) is characterized by little mutual confidence and trust between superiors and employees. There is seldom any indication of the supportive relationships which are so important to successful management, given the Likert theory. Employees are primarily motivated by means of threats and sanctions. Hostility and dissatisfaction at all levels of the organization are rampant. Control and communication originate at the top of the organization and filter downward. There is seldom interaction between individuals at differing levels with regard to operational activities. System 1 reflects assumptions comparable to McGregor's Theory X.

The Benevolent-Authoritative philosophy (System 2) is similar to System 1. In this system, there is an emphasis on one-on-one relationships between the leader and subordinates primarily to keep the subordinate isolated.

System 3 (Consultative) is characterized by increased feelings of responsibility on the part of organizational members, which translates into fairly high levels of job satisfaction. The communication channels are relatively open with information flowing in all directions, although there are some remnants of distortion. Goal-setting is usually established in deliberation with subordinates, although the leader retains the authority to decide. Control and decision-making is still primarily centered at the top of the organization; yet there is usually some delegation to lower levels. Use is occasionally made of cooperative work units.

The Participative system, System 4, is at the opposite end of the continuum from System 1. This is the climate that is advocated by Likert as most conducive to organizational effectiveness. It is somewhat similar to Halpin and Croft's open system in that communication patterns are free flowing, with information passed accurately in all directions.[62] Control in this system is spread to members throughout the organization; the formal and informal organizations are virtually identical. Goals are established through group participation, except in emergency situations. There is much cooperative teamwork with decision making involving all levels of the organization on virtually all issues. Trust between organizational members is prevalent and members have high levels of job satisfaction.

Likert has developed a fifty-one item Profile of Organizational Characteristics for assessing the presence of the eight variables previously mentioned. In school settings, the predominant instrument has been the Profile of a School (POS). Likert and his associates have reported that organizations, primarily engaged in business, which approach the System 4 climate have higher levels of performance as measured by productivity and employee satisfaction.[63] The POS instrument has not yet been used extensively in school settings and little research has been reported.

Need-Press. The last of the conceptualizations of organizational climate is the need-press model advocated by George Stern. Stern conceived of organizational climate as the social context in which each individual's personality is either expressed or repressed in varying degrees. He built his model on the conceptual base provided by Karl Lewin's conceptualization of behavior(B) as a function(f) of personality(P) and environment(E): $(B = f(P \times E))$[64] and George Murray's concept of need-press in the development of human personality.[65] "Need" in this sense is the internal aspects of personality; "press" is the external influences of the environment.

Stern developed the Organizational Climate Index (OCI) for use in school settings. It is composed of 300 items keyed to thirty need variables. Six first-order factors have been developed: intellectual climate, achievement standards, practicalness, supportiveness, orderliness and impulse control. These factors can be reduced to two second-order factors: development press and control press. Development press is found in an organizational climate which fosters self-realization and personal development. Climates which impede self-realization and personal development by inhibiting or restricting expressiveness and spontaneity are those which exhibit control press.

Using this model, four types of organizational climates can be derived if one conceptualizes the control press and development press scores as providing two axes. Their intersection provides four possible climates: high control/high development; low control/high development; low control/low development; high control/low development.

Leadership Styles

The study of leadership has intrigued and frustrated researchers for most of the last century. Tied to a desire for knowledge about what makes a good leader have been several other concerns, including how the attributes of leadership might be assessed and what action might be taken once the appropriate assessments have been made. This section will outline the trends in leadership research. Then, prevailing methods of assessing leadership style in the school setting will be discussed. Finally, the implications of assessment for modifying leadership patterns will be addressed.

There have been three major phases in the study of leader behavior. First was the concept that successful leadership was the function of particular traits of an individual. It was thought that if these traits could be properly isolated, one could identify appropriate leaders: i.e., those persons who manifested these special traits. Research in this vein began around the turn of the century and dominated the field for fifty years. By the late 1940s, it had become apparent that there would be no concensus on which traits were characteristic of "good" leaders. The research comprised numerous investigations, but they had contradictory conclusions. Stogdill concluded:

> [F]indings suggest that leadership is not a matter of passive status, or of the most possession of some combination of traits. It appears rather to be a working relationship among members of a group, in which the leader acquires status through active participation and demonstration of his capacity for carrying out cooperative tasks through to completion.[66]

The search continued, however, but with a shift in emphasis from searching out the traits common to successful leaders to ascertaining if particular behaviors could be associated with effective leadership. The major thrust of this research was developed concurrently by researchers at several universities. The Ohio State University studies, as they have been often called, began in the late 1940s and centered on the development and revision of the Leader Behavior Description Questionnaire (LBDQ). The eventual form of the LBDQ focused on two particular classes of behavior: initiating structure and consideration. These two dimensions of leadership are similar in construct to those proposed by other authors. In sociology, Etzioni[67] and Parsons[68] called them instrumental and expressive activities. Cartwright and Zander referred to goal achievement and group maintenance.[69] Katz, MacCoby and Morse used the terms "production and employee orientation."[70] These two basic constructs, one a concern for task (i.e., initiating structure)—the other emphasizing personal relationships (i.e., consideration)—provide the framework for much of the research on leadership.

Although these two dimensions have been consistently identified, it has not been conclusively established that a relationship exists between them and measures of leader effectiveness.[71] Using these studies as a base, several researchers theorized that the lack of consistent results was due to differences in the types of situations in which leaders were called upon to act. These contingency or situational theories were first espoused by Fiedler; he suggested that leadership style is a function of the differing motivations of the leader. Effectiveness is a function of the leader's style in concert with what he called the "situation's favorableness."[72] Contingency or situational theory maintains that the most appropriate leadership style is one which best matches a particular situation. Leader behavior advocates had maintained that particular behaviors were uniformly effective, regardless of situational circumstances.

Leadership theory currently is characterized by attempts to relate leadership traits, situational characteristics and leader effectiveness.

Assessment of Leadership Style. The instruments currently available to assess leadership style reflect the major thrusts of leadership theory and research. Since the primary concern here is to provide information to school business administrators with regard to contemporary theory and potential professional development, only some of the most available instruments will be discussed. These are the Leader Behavior Description Questionnaire (LBDQ);[73] the Managerial Grid[74] and its subsequent version, the Academic Administrator Grid;[75] and the Leader Effectiveness and Adaptability Description.[76]

The Ohio State leadership studies resulted in the isolation of two primary dimensions of leader behavior: initiating structure and consideration.[77] Initiating structure refers to the leader's establishment of a well-defined relationship between himself and other members of the work group. It is characterized by formal patterns of organization and communication and specific methods of procedure. Consideration, conversely, refers to behavior characterized by "mutual trust, respect and warmth in the relationship between the leaders and the members of his staff."[78]

Four major styles in this model are formed by the intersection of the concern for consideration and concern for initiating structure axes:

- high consideration/high initiating structure
- low consideration/high initiating structure
- low consideration/low initiating structure
- high consideration/low initiating structure

The high-high posture has most often been associated with performance in school settings.

The Leader Behavior Description Questionnaire (LBDQ) is the instrument used to assess levels of initiating structure and consideration. The instrument contains forty items. Each item is a behavioral statement to which the rater responds in terms of the frequency with which the behavior is observed in the person being rated. Frequency is rated on a Likert-type scale with 1 being "always" and 5 being "never." There are fifteen items used to calculate scores on each of the two subscales (initiating structure and consideration) with the remaining ten items serving as distractors. The LBDQ was designed to be completed by the leader's employees, supervisors or peers. An alternate form, the Leader Opinion Questionnaire (LOQ) was developed for self assessments.

The Managerial Grid is also concerned with two dimensions of leader behavior arising from the Ohio State studies: concern for production and concern for people. Blake and Mouton use a nine-point axis for each of these dimensions resulting in a 9x9 Grid (1 represents the minimum level of concern; 9, the maximum). Although the Grid allows for eighty-one variations in leadership style, Blake and Mouton concentrate on those styles associated with the extremes of the axes and the midpoint. These are the 1,1 (low concern for production, low concern for people); 1,9 (low production, high people); 9,1 (high production, low people); 9,9 (high production, high people), and 5,5 (average production, average people). These five styles have been popularized as impoverished, relation-oriented, task-oriented, integrated, and balanced, respectively.[79] The original grid has been successfully modified by the authors to fit a number of professions. In 1981, Blake, Mouton and Williams introduced a version designed for the academic administrator.

The Academic Administrator Grid, like its predecessors, has two axes, albeit slightly different: concern for people and concern for institutional performance. For this grid, the targeted styles are referred to as "caretaker" (1,1); "comfortable and pleasant" (1,9); "constituency-centered" (5,5); "authority-obedience" (9,1); and "team" (9,9).[80]

Caretaker administration is characterized by "little concern for performance" coupled with low levels of involvement in the use of power and authority. According to Blake, et. al., "such an administrator desires little, strives for little, gives little, gets little and cares little one way or another."[81] In authority-obedience administration, a high concern for organizational performance is combined with little concern for the people with whom one is working. Power and authority are employed to accomplish institutional goals with little thought given to the interpersonal needs of the employee. Diametrically opposite to the authority-obedience administrator is the comfortable and pleasant administrator who focuses on the employees' welfare. This style is characteristic of an administrator who believes "when people are happy, results will take care of themselves and there will be little need for supervision."[82] Constituency-centered administration balances concern for people with a concern for institutional performance. This "balancing act" attempts to accomplish the goals specified by superordinates while avoiding the alienation of subordinates. Constituency-centered administrators seldom show a strong commitment to organizational goals; doing so carries with it the possibility that employees will interpret such actions as unwarranted.

"Team administration" is the final of the five major styles and is the one which Blake, Mouton and Williams support as the best. This style is characterized by "an integration of concerns: a high concern for institutional performance combined with a high concern for people."[83] This 9,9 administrator mobilizes the individual efforts of employees to work in a creative, productive and rewarding manner toward institutional goals.

Blake, Mouton and Williams use an instrument comprised of five paragraphs; it describes differing managerial philosophies and six groupings of statements concerning various facets of administration (making decisions, holding convictions, managing conflict, controlling temper, expressing humor and exerting effort). Administrators are directed to read through the first set of paragraphs and rank the descriptions from 5 (most typical of their behavior) to 1 (least typical). The second task is to examine five sentences in each of the five facets of administration and choose the one most typical of actual, not ideal, behavior. Each of the paragraphs represents a particular stylistic view, as does each of the sentences which make up the second phase.

At the close of the initial assessment, Blake, et. al., report that almost 70 percent of the administrators rate themselves as a 9,9 leader.[84] However, following the week-long training session which accompanies this program, there is usually a shift in these self-assessments with less than a quarter of the administrators reporting a "team" style.

In addition to the self-assessment, instruments are available which allow subordinates and superiors to evaluate one's leadership style within the framework of this system. An evaluation by the pertinent constituents can provide the school business manager with a menu of personal leadership weaknesses as perceived by others, thus providing an opportunity for concerted attempts to alter behavior.

Unlike Blake, Mouton and Williams, Hersey and Blanchard are proponents of situational leadership.[85] They maintain that the most appropriate leadership style depends upon a variety of factors; most importantly, it depends on the level of the maturity of the employee. Maturity is seen as a combination of the "ability and willingness of the individuals or groups to take responsibility for directing their own behavior in a particular area."[36] This model comprises the two axes based upon the Ohio State studies: task behavior and relationship behavior. The axes intersect resulting in four quadrants: high task/low relationship, high task/high relationship, high relationship/low task and low relationship/low task. These styles are called "telling," "selling," "participating" and "delegating," respectively.

The telling style is viewed as most appropriate for employees who have low levels of maturity. It is characterized by the leader who emphasizes directive behavior, defining the employee's role for him or her and telling the employee precisely what to do and how to do it.

The selling style is suggested as most appropriate for employees with low to moderate levels of maturity. It involves a simultaneous and strong emphasis on both task and relationship behaviors. The leader employing this style, although still in control, entices the employee into taking part in organizational goal attainment through processes of communication and explanation.

Individuals exhibiting moderate to high levels of maturity are most productive under participating leadership, according to this model. In such situations, the employee has the ability to do the work necessary for organizational success, but self-confidence is lacking. The participating style utilizes the ability of the leader to communicate in order to support the employee's accomplishment of organizational goals. The leader and the follower share decision making when this style is predominant.

In the last style, delegating, employees have both the ability and the motivation to accomplish the tasks at hand and, therefore, need little in the way of direction or support from the leader. The leader exhibiting this style, with its restricted use of both task and relationship behaviors, can be characterized as one who lets the employees have full rein to make decisions appropriate to their roles within the organization.

The assessment of style is completed through use of the Leader Effectiveness and Adaptability Description (LEAD). The LEAD instrument is composed of twelve situation narratives, each of which has four alternative responses. It has two forms: the LEAD-Self, for self-assessment; and the LEAD-Other for assessments by either subordinates or superiors. In the LEAD-Self, the individual chooses the response which most closely describes how he or she responded to an actual situation similar to the one described; or, if the situation is new to the individual, how he or she thinks he or she would behave in such a circumstance. The organization of the LEAD-Other is identical except that either subordinates or superiors rate their experience or perception of the behavior of the leader.

These instruments (LBDQ, Grid, LEAD) address the issue of the appropriate rater in different ways. The LBDQ, basically, provides for significant groups within the workplace to rate leader behavior, although there is provision by means of the LOQ for the leader to engage in self-rating. Both the Grid and the LEAD systems provide for both self-ratings and ratings by others.

Generally, self-rating should be viewed with caution. With regard to the LBDQ instruments, Halpin concluded that the ratings of subordinates were more reliable than either those of superiors or self-ratings.[87] Several studies have found both self-ratings and superiors' ratings only weakly correlated either to others' perceptions or other position-related variables.[88] Hersey and Blanchard suggest that the self-rating provides a self-perception of leadership style which "may or may not reflect actual leadership."[89] Blake and Mouton also warn that major differences between the ratings of styles by the leader compared to ratings by those individuals with whom he or she works, can exist.[90]

Leadership Style and Effectiveness. The relationship between leadership style and effectiveness is not as clear-cut as one might expect; there are a number of reasons for this. Leadership style has been defined differently and measured in different ways by the various researchers and trainers who have addressed the issue. To further complicate matters, effectiveness is difficult to define. Various approaches have been taken in quantifying the term, including ratings of job satisfaction, number of grievance procedures, group productivity, reputational ratings and perceptions of performance of specific duties.

Silver, in summarizing research on leader behavior and effectiveness, stated that the research has consistently held that leaders' levels of consideration, as perceived by subordinates, relate to subordinates' job satisfaction.[91] Leader consideration has also been inversely related to employee grievances and staff turnover. Research, in general, has been less consistent with regard to the implications of leader initiating structure. Structure has been found to be directly related, inversely related and unrelated to satisfaction.

Blake and Mouton have based their contention that the team or 9,9 style is most effective on a number of studies which have examined various aspects of the program.[92] In those studies, which took place in industrial settings, levels of performance were significantly higher and the quality of decisions significantly better in settings where the 9,9 style was dominant. The Managerial Grid, however, has not been extensively tested in educational organizations.

Hersey and Blanchard rely heavily on the work of Fiedler to support their contention that there must be different styles for different situations. They also suggest that Likert's work reported in *The Human Organization* also supports their model. Although a few studies[93] have been conducted on the validity of the Situational Leadership Theory, there have been virtually no studies on its overall effectiveness.

Probably the most common question raised by persons who have completed the first phase of leadership development, assessment, is: What can be done about it? That is, can predominant leadership styles be changed, and to what degree? Some support exists for the idea that style can be modified through training.[94] However, the extent to which the change is effective and/or longlasting is quite variable. Blake and Mouton have built their training programs on the concept that individuals can learn to be 9,9 managers. They see the processes involved in that style as something "that any individual can learn."[95] However, they cite three conditions necessary for this change: the theory behind the grid approach must be studied and learned; administrators must come to terms with the discrepancy between how they see themselves acting and how others see them; finally, there must be social support for making a change. This social support must come from fellow administrators who are themselves attempting to move to 9,9 management. Hersey and

Blanchard also deal with the issue of successfully changing leadership style.[96] They, too, see a change as feasible, but they caution that the process is laborious, with many opportunities for the individual to lapse into older, more comfortable styles. Like Blake and Mouton, they see the most effective method of successfully altering style including an overall organizational program—not isolated attempts by individuals. Fiedler cogently points out that "a person's leadership style reflects the individual's basic motivation and need structure" and, therefore, takes much time to effect.[97]

Organizational Development

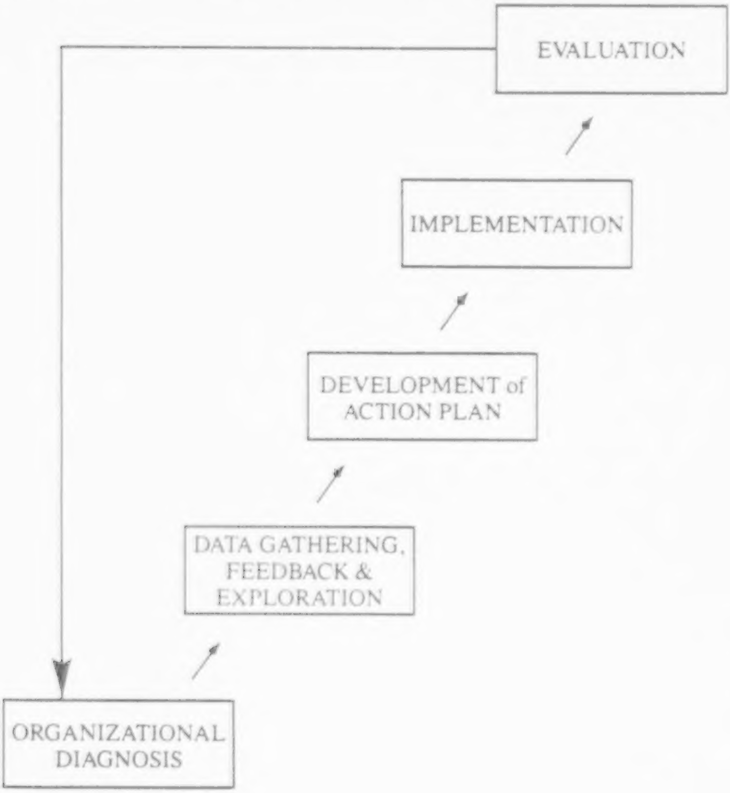
Organizational development is a long-range effort to improve an organization's problem-solving and renewal processes, particularly through a more effective and collaborative management of organizational culture, with the assistance of a change agent or catalyst, and through the use of the theory and technology of applied behavioral science, including action research. According to French and Bell, organizational development is ongoing, data-based, experience-based and goal-oriented.[98] It constitutes a normative-reeducative strategy of change, using a systems approach. School business administrators are often involved in organizational development activities even when they are unaware of them. For instance, if the school district has made a decision to computerize its operations, a planned change has been decided. The questions which must be asked in preparation for any change are essentially the same whether they are in the business office or in the classroom; the appropriate processes are the same, as is the method of assessing organizational readiness to begin a change. This section will introduce the concepts of organizational development: characteristics, methodologies and methods of assessing an organization's readiness for change.[99]

Characteristics. The principal model for organizational development is that of action research.[100] It is essentially an ongoing five-stage system as illustrated in Figure 3:3. Every organizational development effort should begin with a systematic diagnosis of the organization. This diagnosis can take several forms and take place at a number of organizational levels. The focus of the diagnosis can be the total system, a subsystem, or individuals or the roles which individuals play within the organization. In school settings, then, the focus might be on the entire district, or only one building, department or set of relationships. The purpose of the diagnosis is to identify areas of strengths and weaknesses within the organization. Although most organizational development plans are directed toward improving organizational weaknesses, it is also beneficial for the organization to be cognizant of its strengths.

The next stage includes data gathering, feedback and exploration. In classical organizational development programs, this task was usually carried out by a third party; however, the current trend is for these efforts to be conducted "in-house" as long as the organization has the technical expertise needed to collect the appropriate data. The organization collects data about the problems that were identified in the diagnosis stage. These data can be derived from archival records, questionnaires, interviews or other similar means. Once these data are collected they are analyzed by the organization within the context of the problem and sometimes in concert with an outside consultant.

From the analysis of data there usually will emerge several alternatives for addressing the problem. The strengths and weaknesses of each of the alternatives should be evaluated in light of overall organizational goals and potential costs and benefits. Every effort should be made to encourage divergent thinking with regards to potential solutions.[iii] When an alternative has been selected, detailed plans should be drawn detailing objectives, resource needs (both monetary and material) and timelines.

Figure 3:3: Stages of the Organizational Development Process.


EVALUATION
IMPLEMENTATION
DEVELOPMENT of ACTION PLAN
DATA GATHERING, FEEDBACK & EXPLORATION
ORGANIZATIONAL DIAGNOSIS

The next stage implements the action plans devised to address the problem. Unforeseen conflicts may now arise among organizational members. Persons involved in directing the change effort should be aware of their need to address the questions and concerns of those who are opposed to the change program. An integral part of the implementation process should be evaluation, which provides the link in the cycle between program implementation and diagnosis. The evaluation of the organizational development effort raises additional questions for which data must be gathered before decisions can be made, thus effectively reviving the process from which the change effort emerged.

This cycle of problem identification, data collection and analysis, action planning, implementation and evaluation characterizes organizational development activities.

Determining Readiness for Organizational Development. Schmuck and Runkel specify six conditions that are necessary before an organization can engage in a change process.(10) They are an organizational press for organizational development, support for organizational development, staff stability, group norms which support collaborative work, skill in collaborative group work and a spirit of risktaking.

Before an organization can undertake an organizational development program, a consensus that something needs correcting must exist. As obvious as this may sound, numerous cases of attempted projects fail simply because they were the pipedream of one or two people. A "critical mass" of people should be dissatisfied with the direction in which the organization is proceeding, and cadre of them should also be confident that organizational development processes are both feasible and desirable. Obviously, it is helpful if a large portion of the organization seeks a particular change. There are many ways to ascertain whether members of the organization are dissatisfied and whether that dissatisfaction is focused. In an informal way, one may simply assess the issues which are bantered about in the faculty lounge, PTA meetings or public hearings before the board. More formal assessments may take the form of questionnaires, interviews and school records. It will also be helpful if outside forces support or are neutral concerning the proposed change.

A second necessary condition is that of support for the organizational development effort. Support can take different forms: money, expertise and administrative endorsement. Before undertaking the effort, organizers should develop a list of needs. One method of ascertaining support for the project comprises asking individuals what they can contribute to the effort; other sources of support are cooperative districts, local college and university professors and the state department of education staff. Certainly, it is easiest to begin a project when officials both express support and back that support with organizational resources. Often the most important aspect is convincing someone that the proposed project has merit.

Staff stability is another necessary condition for a successful change effort. Staff turnover must be relatively small if the critical mass alluded to earlier is to be maintained. This critical mass can be kept intact by several means: keeping all of its active members, replacing members who leave with those having similar beliefs and initial over-staffing. If at all possible, the top-level administrators should remain the same throughout the change effort. If a strongly supportive individual leaves, the project often falters; and, although there is a need for staff stability, too little turnover can have deleterious effects also—the staff will become too comfortable with "old" habits to try new ideas.

Effective organizational development programs require the work group to function collaboratively; therefore, it is necessary that the organization have norms which support collaborative work. One must determine the extent to which people working in the organization share tasks, work together and exchange ideas. Since organizational development activities require considerable time and effort, it is important to ascertain if supporters are willing to work overtime. Although this issue must be faced early, attempts should be made to determine the organizational norms for this type of activity: Are they supportive? Have people given freely of their time in the past?

It is not only necessary that the organization support group collaborative work, leaders of the organizational development effort must also have skill in coordinating the activities. Often it will be necessary to have individuals trained to better facilitate the open communication needed for such work.

The last condition for organizational readiness to undertake a development effort in best summarized as a spirit of risk-taking. Change efforts are sometimes unsuccessful. If the organization consistently punishes (through attitudes as much as sanctions) those persons who attempt to effect a change, the composite risk-taking nature of the organization is compromised. Although unnecessary risk is to be avoided, organizations can be responsive to changing environments only when they support risk-taking.

Determining whether an organization is "ready" to engage in organizational development is important. If the organization is not receptive, providing an atmosphere supportive of change effort, it will not succeed. Although it is not necessary for each of these six conditions to be met, weaknesses in two or more areas probably indicate that more groundwork needs to be completed to prepare the organization (in general) before attention is directed to specific problems.

Change Strategies. Although specific implementation strategies take a variety of forms, Chin suggests that they can be classified as one of three types: empirical-rational, power-coercive or normative-reeducative.[103] The classifications reflect the basic philosophical underpinnings of each category.

The empirical-rational model assumes that humans are a rational beings and will follow rational self-interests once these interests are revealed. Therefore, changes proposed by experts which emphasize increased productivity or efficiency utilize empirical-rational strategies of change. These strategies are used primarily in connection with 'thing' technologies, such as new procedures or equipment. The rapid adoption of computer technology is an example of this type of change. Organizations commit themselves to purchasing computer systems primarily because they are viewed as economical.

The second category of change strategies is the power-coercive model. Power-coercive strategies seek to mount political and economic power behind the change goals which have been determined as desirable by an outside group. The emphasis is on the use of sanctions to ensure adoption of the proposed change. This strategy is often used by governments to compel organizations to accept change. Extra funding for schools that adopt certain state-endorsed programs is a strategy used under this model. A more dramatic strategy is the withholding of funds from school districts if specific programs or guidelines are not enacted.

Organizational development programs utilize the third category: normative-reeducative strategies. These strategies reflect the philosophy that change activities are successful only when the people involved in the change are able to alter their normative orientations to old patterns and develop commitments to new ones. To accomplish this there must be changes in attitudes, values and relationships and not just in prescribed activities. Effective change under this model requires considerably more than a justification that the proposed change is desirable.

Summary

The aim of this chapter has been to introduce the prospective school business administrator to the rich literature of management thought, as a means of facilitating an understanding of the forces that dominate organizations, but especially educational institutions.

Modern management is not a discipline with a long and glorious history; rather, it has its origins in the demand for more effective organizations which arose little more than a century ago. Contemporary management theory addresses issues which are important to the operation of schools. Several of these issues have been addressed here: implications of organizational structure, organizational climate, leadership and organizational development.

School business administrators are in a pivotal position regarding the overall organization. They have access to, if not control over, the financial resources of the organization. Additionally, they interact with every level of the organization from the superintendent to the custodial staff. Because of this unique position, it is imperative that the person holding this position know the *total* organization, not just the specific task areas for which he or she is responsible daily.

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4

Taxation for Education

Thomas H. Jones

Effective school business administration requires a wide variety of knowledge and skills, including knowledge of taxation issues and practices.[1] At no time has this statement been more applicable than in the present decade. After forty years of nearly continuous growth, many schools today are confronting economic decline. Therefore, educational leaders and participants in the policy-making process must develop their expertise not only in spending money, but also in raising it.

The United States and all other developed countries rely on a variety of taxes to raise revenue. They have what is known as a "mixed" revenue system. Required then is some basic understanding of the mechanics of all taxes, the extent of their utilization and the way they relate with each other to form an entire revenue structure. Also important is some knowledge of criteria for judging the relative advantages and disadvantages of each tax.

This chapter begins with a discussion of the specialized concepts associated with the field of taxation. The discussion not only serves to introduce new terminology but also introduces the technical considerations underlying current tax issues and controversies. The second section describes each major tax in some detail. Property taxes receive special attention because they still make up the largest share of school revenue in most local school districts across the nation. The third section begins with a conceptual discussion of the principles of taxation; (what makes a tax "good" or "bad") and ends with an examination of taxes actually levied by the fifty states. Only with an understanding of the present tax system and criteria for evaluating alternatives is one in a good position to be an effective manager and an informed spokesperson for public education.

Tax Fundamentals

The field of taxation has its share of specialized vocabulary which is used in virtually all discussions of taxation.[2] A tax has two elements: it is *compulsory*, and it is *unrequited*. People must pay taxes whether they want to or not because, as individuals, they have no choice in the matter. Moreover, payments ordinarily must be made without expectation of a commensurate benefit in return. Bachelors pay school taxes, for example, and pacifists help finance national defense.

That individuals cannot expect a benefit commensurate to the taxes they pay does not mean that no one benefits. It is hoped and indeed expected that the society as a whole will benefit in full measure from the aggregate amounts of money collected and spent. The point is that the individual taxpayer and the beneficiary are not necessarily the same person.

The tax *base* is that which is taxed. Land, buildings and other improvements constitute the real property tax base, for example. The base also serves to measure taxpayers' *ability to pay* in relation to each tax. Ability to pay is the principle which distinguishes among various taxpayers in the amount of tax owed. As individual citizens we will believe that some measures of ability to pay, e.g., personal income, are better than other measures, e.g., cigarette smoking. Nevertheless, nearly all taxation is based on ability. The tax *levy* is the dollar amount collected. Levies may be spoken of in relation to one taxpayer or a whole jurisdiction.

The *impact* of a tax falls on that taxpayer or business organization that pays the bill initially. Sometimes, however, a tax may be transferred or *shifted* to others in the form of higher prices for products and services. When shifting occurs, the final *incidence* of the tax falls on a person or persons different from those who initially paid the bill. Taxes which cannot be shifted are sometimes called *direct* taxes; *indirect* taxes are those which can be shifted.

Analyzing the incidence of direct taxes is relatively simple, but determining who actually pays indirect taxes is more problematical. Unfortunately, empirical analyses of tax incidence are clouded by methodological problems and highly tentative assumptions. Economists frequently disagree among themselves as to who finally pays the tax in the last analysis. One point on which all experts agree, however, is that the final incidence of every tax falls on individuals. While so-called business or corporate taxes have an impact at the company level, the tax ultimately falls on owners, employees or consumers. Businesses do not pay taxes; people do.

Tax *capitalization* is a concept closely related to shifting. Assume that a new tax (or an increase in an existing tax) is enacted. If the incidence of the tax falls on the owners of an asset, it is highly likely that the asset itself will become less valuable to any prospective buyers. Because the tax has gone up, the asset itself becomes intrinsically less valuable. Ownership of the asset becomes less desirable due to the future stream of taxes the owner must pay.

Similarly, when there is a tax decrease such as the one that occurred for most homeowners when California passed its Proposition 13, property increases in value, since owners could expect their future stream of tax payments to be reduced.[3]

If the government's revenue from a particular tax changes faster than personal income, we say that the yield for that tax is income *elastic*. If changes in personal income and tax yield bear a one-to-one relationship, the tax has an *elasticity of unity*. When the yield of a particular tax changes more slowly than personal income, the term used is *inelastic*. For example, suppose personal income goes up five percent from one year to the next. If the yield goes up exactly five percent too, it has a unitary elasticity in that year. More than a five percent increase in yield and the tax would be elastic; less than five percent and the tax would be inelastic. Exactly the same terms would apply if personal income were to drop. The government's income from an elastic tax falls more sharply in periods of economic slump. In all cases, calculation of elasticity assumes a constant rate and base structure from one period to the next.

Progressive tax rates are set to tax upper income groups more heavily than lower. If a low income household pays, for example, ten percent of its income in a particular tax, a higher income household must pay some percentage in excess of ten for the tax to be progressive. *Proportional* taxes gather in the same proportion of income across the income range. And *regressive* taxes require a higher percentage from the poor than the rich.

Keep in mind that these concepts deal with percentages not the number of dollars paid. Even for a highly regressive tax like the poll tax—a tax on voting, which fortunately is no longer used—it is probable that the rich paid more than the poor, since the latter were simply less likely to vote. (In fact, the tax itself was imposed to discourage poor people from voting.)

Progressivity deals with rate structure. Elasticity deals with actual yields. Although the terms are related, they are not the same thing, and bear no constant relationship to one another. For example, in the case of the poll tax it is probable that during the civil rights and anti-poverty movements of the 1950s and '60s, the number of people voting in some jurisdictions rose faster than personal income. Poll tax receipts would therefore also have risen faster. Under these assumptions the poll tax may have been highly regressive and elastic over the period!

Marginality is the concept of the last or incremental unit among similar units in a series. If a person owns ten shirts and is considering buying an eleventh, we may say that the eleventh is the marginal shirt. One historic assumption of welfare economics had been that the marginal unit is less valued psychologically than the preceding units.[4] People feel they "need" the eleventh shirt less than they need the tenth, the tenth less than the ninth and so on.

The concept of the diminishing marginal utility of income has been one rationale for progressive taxation. If the "last" few thousand dollars of income are less valued psychologically and materially than the "first" few thousand, then higher incomes may be taxed at higher marginal rates.

Equity is the concept of fairness or justice in dealing with others. Equity is subjective and as such it belongs more to the realm of philosophy than to economics. People will disagree as to what constitutes fairness, but nearly everyone would agree that all people should have a decent minimal living standard. Such a consensus militates strongly against regressive taxation on grounds of equity and promotes the existence of an income floor under which no one's living standard should fall. The "minimal living standard" consensus cannot, however, distinguish between proportional and progressive taxation on their merits. In view of these competing claims and conceptual frameworks, it seems certain that we cannot positively know which rate structure is best, although we can have strong subjective leanings. Keep in mind, however, that to determine the equity of any tax one must first make crucial assumptions about capitalization and shifting and about the desirability of progressive taxation. Since these matters are not thoroughly understood by economists and since there is a division of views based on subjective leanings, tax structures always will be a contentious issue in any democracy.

Public finance specialists are fond of likening taxes to workhorses and the government economy, with its spending services like education, to a wagon. In this analogy, there are three principal workhorses. These are income, sales and property. Other taxes frequently are called minor taxes because these three do most of the work.

It is more useful to discuss the major taxes according to type rather than by governmental jurisdiction (e.g., federal, state and local) for the latter tends to become repetitive. The basic description of each type of tax is the same for all governments, recognizing that there are differences in implementation which will be pointed out as necessary.

The Income Tax

There are two types of income taxes: personal and corporate (or business) taxes. Both types require a definition of income in order to set the tax base. For definitional purposes the total amount of money that passes through the hands of an individual or business—accounting concepts like cash flow or gross income—are considered unsatisfactory measures. These sums do not measure well-being or taxpaying ability. Additionally, governments may wish to use their income tax laws to foster socially useful activities. For these reasons certain deductions, exemptions and credits are considered in setting the tax base.

For businesses the major portion of the deductible items includes that portion of total receipts which must be paid out in the conduct of business. In a sense the concept applies to individuals too. When individuals have extraordinary medical expenses, when they pay interest on debt or have casualty losses, these considerations, among others, are thought to reduce a person's economic well-being and thus should reduce taxable income. Other items such as a minimal amount of investment income or charitable contributions are deductible on the grounds that they improve the well-being of society or support certain activities which governments otherwise might have to undertake. Gross income less deductions and other adjustments represent adjusted gross income.

For individual taxpayers, governments also allow exemptions for dependents. In principle, these reduce taxable income by the amount all dependents require for a minimum living standard. The federal exemption is clearly too low according to this principle. However, many proposals for income tax reform at the federal level would raise the exemptions substantially.[5] Some states' income taxes do have exemptions which are closer to the minimum living standard.[6] Adjusted gross income minus exemptions yields taxable income.

Finally, there are credits, a concept that has been employed heavily in recent federal tax law changes. The rationale for credits is similar to those for deductions and exemptions. But credits are reductions from the tax which would otherwise be payable, resulting in the same dollar saving to all qualified taxpayers regardless of income. Deductions on the other hand result in greater dollar savings for the higher income group, if the rate structure is progressive.[7]

The personal income tax is the only major tax which has been clearly progressive over the years across the full income range, and this feature accounts for much of its popularity and its controversy. About four fifths of the states have fully operative income taxes for individuals, and several of the others levy taxes on income derived from specific sources, such as stock dividends and capital gains. Nearly all states have some degree of progression in their rate structure with the highest rates exceeding ten percent for taxpayers in some states. For an average family of four, state income taxes amounted to just over two percent of personal income in 1980. However there are wide variations from state to state.

The federal rate structure is, of course, steeply progressive, and the percentages are much more substantial.

Local income taxes usually have low, uniform rates, yet there are significant exceptions to this generality.

Federal corporate income taxes have been at roughly the fourty-five percent level in recent years for all but the smallest enterprises. The latter pay less, so there is some slight progression. Deductions and allowances have reduced the corporate tax burden substantially in recent years. Nearly all states, but very few localities, levy corporate income taxes.[8]

Table 4:1 shows the growth in income tax receipts over the last quarter century. Reliance has been heaviest at the federal level because this is the only level of government which can impose high, steeply progressive rates. The extent of the federal government's jurisdiction makes its high taxes virtually impossible to avoid, while people can always move away if a state or community's taxes climb too high. Despite the limitation on rates, the federal government hardly can be said to have preempted the income tax as its own source of revenue. States and localities do rely heavily on both personal and corporate income taxes. This reliance has grown over time as laggard states have finally adopted the tax and other states have raised their rates.

TABLE 4:1 Income Tax Collections from Individuals and Corporations, 1957-1983
(in millions of dollars)

	Level of Government		
Year	Federal	State	Local
1957	$ 57,787	$2,547	$ 191
1967	95,497	7,136	916
1977	211,617	34,666	3,754
1983 (est.)	326,000	63,000	6,000

est. = estimated

Sources: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1982-83 Edition* (Washington: ACIR, 1984), 36.

Shifting is not possible in the case of personal income tax. The impact and incidence necessarily are the same for all individuals. Shifting does occur in corporate income taxation, although to whom is still an open question. Whether corporations pass the tax on to consumers in the form of higher prices or whether the owners pay the tax in some form of reduced profits depends on the realities of the particular market and economic viewpoints. If owners pay the corporate income tax it would be progressive at least for the very highest levels of income, since ownership of corporations is heavily concentrated among the upper income groups. If consumers pay the corporate income tax, it would be regressive, since lower income groups spend a larger share of other income and do less saving.[9]

The argumentation here parallels the discussion of property tax incidence to be discussed in more detail later. Contemporary economic theory links the real property tax on businesses with the corporation income tax for purposes of incidence analysis.

The two taxes are quite different in some respects, of course. The corporate income tax is a state and national tax while the property tax is local. The bases are different. Corporate income taxes are tied directly to profits, while property taxes remain relatively static in good years and in bad. Nevertheless, the crucial principle of shifting still applies. The belief that the property tax is regressive while the corporate income tax is progressive (or vice versa) represents a view that is increasingly discredited among economists.[10] To advocate reductions in one tax and increases in the other may make little sense if help for the low income groups is the objective.

By definition a progressive personal income tax is elastic; a proportional tax has an elasticity of unity. Elasticity coefficients for corporate income taxation are also greater than one.

Sales Tax

Sales taxes also may be divided into two broad categories, general and selective (or excise). The first term applies when all, or nearly all, products and services are included in the base. Selective taxes are levied on a few specific and related products, e.g., alcohol, petroleum products, customs duties. In the United States most sales taxes are collected at the retail level. This is not the case for some of the selective sales taxes, however, and need not be the case for general sales taxes either. Most countries with national sales taxes impose them at the producer, distributor or wholesaler level or all three. The much discussed value-added tax, which is really just one form of sales tax, is imposed at each stage of the production process rather than at retail level.[11] Alternate forms of sales taxes need not overly concern us here. Americans are used to the tax at the retail level, and it will doubtless continue.

General sales taxes have been left to state and, occasionally, local government use while excise taxes are levied at all three governmental levels. Table 4:2 shows the twenty-five year growth in sales tax receipts since 1950.

TABLE 4:2 Sales Gross Receipts and Customs Tax Collections, 1957-1983, (in millions of dollars)

Year	Totals (Federal, State & Local)
1957	$ 20,594
1967	36,336
1977	83,821
1983 (est.)	142,000

est. = estimated

Sources: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1982-83 Edition* (Washington: ACIR, 1984), 36.

Federal tax revenues have grown just 400 percent while state revenues have grown by over 1400 percent. Local receipts have grown even faster but from a much lower base. Rather than the federal government preempting the income tax as a revenue source, it might be closer to the mark to conclude that states have nearly preempted the sales tax. Another striking feature of the table is the decline in percentage of all sales taxes that are excises. These taxes, with their relatively narrow base, have simply not been able to keep up with government spending requirements.

By 1984 all states except New Hampshire, Delaware, Montana, Oregon and Nevada had a general sales tax. Over half of the states permit some sales taxation at the local level. While their direct use for public education may be limited to only a few jurisdictions, local sales taxes are important because they free up the property tax for school use.

Food and medicine are exempt from most states' general sales taxes. Some states also exempt clothing, drugs or other necessities. Exemptions such as these probably make the tax roughly proportional for people in the middle income levels. For poor people who spend most of their income on exempted items the tax may be slightly progressive. At the highest income levels, the tax may be somewhat regressive since wealthy people tend to save and invest a larger proportion of other income.

All states impose a variety of selective sales or excise taxes. The levy on gasoline is by far the largest revenue producer among the excises. Most of the selective sales taxes are regressive, and this, too, partly explains governments' decreased reliance on excise taxation. Excise taxes are sometimes collected by producers, but the usual assumption of sales taxation is that consumers do pay in the end. Incidence analysis has not received nearly so much attention as it has in connection with respect to corporate income and property taxation.

By raising the price of consumables, the sales tax discourages consumption. Everything else but consumption becomes relatively cheaper by the amount of the tax. The most important exempted item is saving. Sales taxes, therefore, encourage saving because the more that is saved the less that is spent in consumption and the less tax that is paid. Of course, many factors influence one's decision to save, and the sales tax is a relatively minor consideration. Still it does matter. People do respond to taxes by changing their behavior. Most of the time these behavioral changes may be so slight or so gradual that they go largely unnoticed.

The income elasticity of yield for general sales taxes is nearly unitary, or 1.0 in most years. Many of the excises are inelastic, since consumption of the taxed item tends to remain about the same regardless of changes in personal income.

Local Property Tax

Property taxation is the third major workhorse in the tax stable.[12] From its beginning in New England, American public education has been financed largely through this revenue source. Although most states rely on the tax less than they did in the past, it still provides about forty percent of all public school support in the United States.[13]

The property tax holds a unique position in the American public financial system. It is the only major tax which is highly suitable for local governments, including school districts. Yet its primarily local character makes generalizations about the description and operation of the tax more tentative and open to exceptions. For purposes of analysis economists view it as a bundle of different taxes with different rate structures applying to different kinds of property. For example, the property tax on single-family or owner-occupied housing, may be quite different from the property tax on rental housing, farm, stores and large industrial complexes. What is more important, the fact that commercial property owners may be able to pass along some or all of the tax to consumers, complicates the analysis of property tax.

The local property tax can be distinguished from other taxes in several ways. First, the tax has a competitive aspect. Different local jurisdictions are in a sense competing with each other to provide the best possible public services, including education, at the lowest possible cost. Second, the tax is highly visible and is usually paid *directly* by the property owners. The tax is not withheld from salary, like income taxes, included with the costs of purchase, like the retail sales tax or paid indirectly, like many taxes on business.

Of the totals shown in Table 4:3, only about five percent represent state property tax receipts and ninety-five percent are local receipts. The federal government levies no property tax.

Table 4:3 Property Tax Receipts of State and Local Governments, 1957-1983, (amounts in millions of dollars)

Year	Amount
1957	$12,864
1967	26,047
1977	62,527
1983 (est.)	90,000

Taxable property is defined differently by different states, although by definition it must fall into one of three broad categories: 1) tangible real property, 2) tangible personal property and 3) intangible personal property. While most states do have some form of "personal property tax," they vary widely in their nature and structure.

Tangible personal property typically includes items like automobiles and boats. Since most of these items are licensed, tax evasion is more difficult than with unlicensed types of personal property such as antiques, gem stones and fur coats. This topic receives greater treatment later in the chapter. Intangible personal property includes stocks, bank accounts and other assets representative of wealth but not intrinsically valuable. Of all types of property, intangibles are the least heavily taxed since concealment and transportation are relatively easy.

By far real property is the most important property tax category. Real property is defined as land, buildings and other improvements, e.g., in-ground swimming pools and drive-ways. In some states heavy machinery and fixed equipment found in business and industry are included in this category.

Valuing real estate according to its selling price is the most common way of setting taxable property values in the United States, although two other methods are sometimes used. Where property values are set according to sales price, the sales must be legitimate transactions. Sales of property between two business partners or two members of the same family must be scrutinized carefully. The selling price should represent the maximum amount that the seller could reasonably expect to receive and the minimum amount the buyer could reasonably expect to pay. This amount represents the "true market value" of that parcel.

Since most properties are sold infrequently, market values of property must be estimated. Localities may employ outside organizations, or use local civil servants, to value or "assess" properties for tax purposes. Assessment is a highly technical task that should be conducted by trained professionals.

There are two other approaches to assessing property for tax purposes. While not as widely used as the selling price approach, they are common enough to deserve special mention. First, property can be taxed on its income earning capacity or rental value—the amount of money such property would bring to its owner in a typical recent year or longer period of time. The tax then becomes some portion of the real or hypothetically calculated rent. The second approach is to base the tax assessment on the original cost or replacement cost of the property less depreciation. This accountant's method is appropriate for such properties as steel mills or electric power plants that are rarely, if ever, sold or rented.

These three valuing methods, selling price, rental and replacement cost, can generate very different revenue results. The following discussion will assume a market value approach, since it is the most common in the United States. The concept used in this discussion, however, can be applied to any of the three valuation methods.

By custom most localities assess their properties at some percentage of full market value. For example, if the "assessment ratio" is set at fifty percent, then a property with a market value of $70,000 should be assessed at $35,000. Another property which would sell for $500,000 on the open market should be assessed at $250,000 and so on.

The full details of fractional assessment need not be discussed here. Suffice it to say that the practice has a political foundation. Fractional assessment makes all properties appear to be worth less than they really are and makes property tax rates appear higher than they really are, when taxes are expressed as a percentage of assessed value.

At tax time everyone likes to look poor and overburdened, but tax experts tend to be opposed to fractional assessment. It adds to taxpayer confusion and makes sound administration of the tax more difficult.

In the simplest case, all property of whatever type is taxed at the same fraction of market value. However, the traditional American custom of assessing property at some percentage or fraction of market value has given rise to various property tax classification movements. Where successful, these movements have produced state laws permitting or requiring localities to tax some classes of property at a larger fraction than other types. For example, all residential property might be assessed at one half of (the assessor's estimate of) market value while all commercial and industrial property is taxed at two thirds. Mines, farms and undeveloped acreage are examples of property that are given special classifications in various states or localities. In some states, the tax advantage may extend even to the elimination of the tax entirely on certain types of property, thus making property classification schemes similar to tax exemptions, discussed later. By one recent count, nine states and the District of Columbia had comprehensive property tax classification schemes.[14] In addition to these comprehensive plans, states have specific assessment ratios for assessment of farmland.[15]

In some instances property owners are granted tax exemptions if their property is given over to special uses. Land used for religious and charitable purposes, for example, is always exempt from property taxation. The "circuit-breaker" laws in many states provide tax rebates to low income and elderly homeowners (and in some states, tenants) if they pay more than a specified percentage of their income in tax. Some states allow local jurisdictions to promote the establishment of new business and industry through various property tax reduction or elimination plans. Homestead exemptions reduce the tax paid on houses by making the first few thousand dollars of house value exempt from tax. In all these cases state statutes regulate the types of tax forgiveness that properties and their owners receive.

Since tax classification and forgiveness laws vary so greatly from state to state, further discussion of specific provisions would not be useful. It must be remembered, however, that provisions favoring certain classes of property and owners put extra burdens on other classes. Often, those not favored must be taxed more heavily than would otherwise be necessary in order to raise needed revenue.

As evidence from the above discussion, the true market value of properties in any local jurisdiction will be much higher than the assessed values due to fractional assessment, classification and/or exemptions. It is the assessed value, however, which forms the base to support schools and other local public services. The assessed value of all taxable parcels of property within a school district is totaled to obtain the dollar value of that jurisdiction's tax base.

The School's Portion of Tax Revenues

Several factors influence local school boards and administrators as they strive to determine their amount of local property tax revenues in any given year. The first is the need of other local governmental agencies for non-school services. A portion of highway, park, police, recreation and other service costs usually must be borne by the property tax base. Table 4:4 lists the average percentage of local revenues apportioned to major public services. Schools are generally the most costly local service, requiring more than forty percent of all local revenues. But the averages are misleading in certain jurisdictions. Because of heavy non-school needs, large cities often spend a much smaller percentage of their local revenues on the public schools.

Table 4:4 State Limitations on Local Government Taxing and Spending Powers, The Growth in the '70s

Year	Exemptions, base and rate limits	Number of full disclosure laws	States with property tax levy limits	expenditure lids
1970	40	0	3	1
1979	46	10	20	8

Sources: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism 1979-80 Edition*. (Washington: ACIR, 1980), 185.

Other factors affecting the school district's portion of the property tax base are legal constraints, such as: 1) fiscal dependence, 2) tax rate, tax base and tax levy limitations 3) per pupil spending and budget limitations and 4) full disclosure provisions.

1. School district fiscal dependence. School districts are sometimes prohibited by state law from setting their own taxes and budgets directly. In this event the districts must obtain approval from other local governmental bodies. These other governmental bodies have the duty of reviewing, discussing and finally approving the school system's tax and/or budget. Typically their role is confined by law to control over the total magnitude of the budget. Within broad state guidelines, school boards supposedly are free to allocate funds as they see fit. Informally, however, these non-education bodies have been known to make approval of the full budget contingent upon the items within it.

2. Local tax rate base and levy limitations. States may, by statute, limit the tax rate that school districts can impose. Limitations are expressed as some percentage of assessed value. Particularly where assessed values have risen rapidly, states may impose limitations on the base. California's Proposition 13, for example, limited assessment increases to a fixed percentage per year, except in the event that the parcel was actually sold.

Levy limitations apply to the amount of total revenue increase without direct reference to the base or rate. Annual increases may be limited to a fixed percentage of last year's budget or may be tied to some other index like the rise in personal income.

Tax limitations may be *absolute* (under no circumstances may localities exceed the limitation) or *provisional* (the local electorate or state authority may permit the limitation to be exceeded). Limitations may apply to the entire school budget or to specific portions, e.g., the portions used to finance school construction.

3. Per pupil spending and budget limitations. Restrictions may be imposed on the growth in school expenditure either by limiting the total budget or by limiting the annual growth in spending per pupil. Some jurisdictions must submit their budgets to a vote of the people. In other localities school budgets are restricted by law to some arbitrary level of growth, for example, seven percent per pupil per year. Again, states can show varying degrees of flexibility in applying these restrictions.

4. Full disclosure. This is a somewhat more flexible application of the property tax restraint concept. Flexibility lies in the provision that localities may raise school (and other) taxes if they first make paid announcements and hold public hearings on the proposal. In other words, with full disclosure a revenue increase is possible. Rates may not be increased, and if the tax base goes up, rates are automatically rolled back to offset it.

States may, of course, impose more than one of these types of restraints. Within any state, restraints may affect some local governments but not all. Table 4:5 indicates the wide-spread use of these mechanisms and their growth in the last decade.

Tax and expenditure controls should be viewed as different means of accomplishing the same objective. Limitations in tax rates or bases automatically impose limits on expenditure and vice versa.

Table 4:5 Direct General Expenditures of Local Governments, By Function 1976-77[a]

Function	Amount (in millions of dollars)		Percent of Total[b]
Education	$75,707		44 %
Schools (70,895)		(41)	
Others (5,993)		(3)	
Social Services	23,721		14
Transportation	11,152		7
Public Safety	15,349		9
Environment	14,014		8
Housing	3,210		2
Other	27,785		16

a/ Expenditures include intergovernmental transfers.

b/Percentages add to 96 due to rounding errors.

Sources: U.S. Department of Commerce, Bureau of the Census, *Compendium of Government Finances, 1977 Census of Governments, Vol. 4(5)* (Washington, D.C.: GPO, 1979),32.

Setting the Rate

The school tax rate can be set by formula, once a district's local property tax revenue requirements are determined. The formula for setting the school tax rate is:

$$STR = \frac{LREV}{LAV}$$

where, STR = the school property tax rate in a given district in the particular year; LREV = local property tax revenue needed to operate the schools in the particular year; and LAV = the local assessed valuation in that district in that same year.

For example, if $3 million in local property tax revenues were needed to run the schools in a particular year, and the district's total assessed valuation were $100 million, then the school tax rate would be $3 million divided by $100 million or three percent.

Other terms may substitute for percentage figures in common parlance. A tax of three percent may be called 30 mills, $3 per hundred or $30 per thousand of assessed valuation. One mill equals 1/10 of a cent or $.001.

The school tax rate multiplied by the assessed value of any single parcel represents the amount of school tax the owner of that parcel must pay in a year. Some jurisdictions require a single lump sum payment. Other localities spread out the payments. Many commercial and residential property owners pay one twelfth of their property tax each month, along with their mortgage.

Minor Taxes and Other Income Sources

Other revenue instruments include taxes on transfers of wealth at the owner's death. *Death taxes* take two forms, estate taxes imposed on the entire amount of an estate and wealth and inheritance taxes imposed on the share to each heir. The federal tax applies to estates and is so structured that the states may pick up a share of it at no additional cost to the estate itself. Also, states may impose an additional tax of their own, either on the estate or the inheritance. The latter type is the most common at the state level. Recently, death taxes have raised an average of $8 million per year.[16]

Fees and *licenses* are another source of governmental revenue, but they are not taxes in the ordinary meaning of the term. They are linked to a distinct governmental service that is ordinarily expected in return for the payment. State motor vehicle and driver's licenses are the largest revenue raisers in the fee and license category. Public schools too may impose fees occasionally, but these generally do not significantly impact the financing of education.

Intergovernmental Aid

Intergovernmental aid is a large and growing source of revenue for state and local governments. Only a fraction of all intergovernmental aid goes directly to schools. Nevertheless, indirectly it assists schools by freeing up funds previously allocated to other public services. As Table 4:6 indicates, lower levels of government have become increasingly dependent on higher ones, although this trend may be reversing at the present time. Intergovernmental aid allows states' local expenditures to greatly exceed their revenues, and public schools certainly have not been immune from this trend.

Table 4:6 Intergovernmental Revenue as a Percentage of General Revenue From Own Sources[a]

Year	Federal aid to state	Federal and state aid to localities
1960	31%	44%
1970	33	57
1980	38	79

a/ excluding duplicative intergovernmental transfers

Sources: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1980-81 Edition* (Washington: Advisory Commission on Intergovernmental Relations), 59.

It is clear from Table 4:7 that there have been long term tax trends leading to a gradual de-emphasis of some taxes and increasing reliance on others. Income taxes have become the most predominant form of taxation, with the shares of all other revenue sources on the decline. This is indeed a reflection of the popular belief that the income is the fairest tax. But questions about the equity of deductions, exemptions and definitions of taxable income remain with us, suggesting that there are limits to the additional income that governments can expect to derive from income tax.

Table 4:7 Tax Trends, 1950-1980

	Federal, State and Local Taxes expressed as a percentage of total revenues:			
Year	Personal Income	Sales and Excise	Real Property	Other[a]
1950	32%	25%	14%	29%
1960	38	21	15	26
1970	43	21	15	21
1980	50	19	12	19

a/ among others are corporate income, death and gift, motor vehicle and operators licenses, severance, documents, stock transfer

Sources: *Advisory Commission on Intergovernmental Relations, Significant Features of Fiscal Federalism, 1980-81 Edition* (Washington: ACIR, 1981), pp. 40-41.

Bureau of the Census, *State Government Tax Collection in 1980.* (Washington: U.S. Government Printing Office, 1980), p. 5.

Conceptual Criteria for Evaluating Taxes

Before discussing the rationale for a mixed or multi-source revenue system such as we have in the United States and the merits of each of the taxes, it is important to consider the irony that exists within most tax schemes. On one hand, a government endeavors to promote social justice and material well-being through services and programs paid for by taxes. On the other hand, mankind has yet to find the "perfect" tax. That is, every tax has aspects of injustice, undue economic burden, or both. Taxes, in a sense, undermine those very objectives which governments set out to achieve. Of course a society with no government is impossible. What we must hope and expect is that the positive results of governmental services improve the human condition more than taxes retard it. The tax system as a whole must mitigate the negative effects of each tax while raising sufficient revenue. The primary means for accomplishing this in the United States has been to levy a variety of taxes.

Over the last three centuries economists have devised several criteria for weighing the merits of particular taxes. Every tax satisfies some of these criteria, but no tax satisfies all of them. Having many taxes not only assures that all the criteria will be met and violated simultaneously, but also minimizes the social injustice and economic burdens associated with any one tax.

Ability to Pay and Equal Treatment

There is general agreement that in order to make taxes as equitable as possible they should be based on the principle of ability to pay. In the United States, nearly all taxes are levied on this basis. This simply means that taxes are collected from individuals with no fixed expectation of a personal benefit in return. In a democracy, ability to pay is the collective social judgment of the voters.

Equal treatment of people in the same circumstances and treatment of people in different circumstances in accordance with relevant differences are different ways for saying almost the same thing. People in identical situations with respect to a particular tax should pay the same amount. People in different situations should pay different amounts, but the payment differential should be reasonably related to their differing situations. It would be unfair, for example, for one family which had only a slightly larger income than another to pay a much bigger income tax. Equal treatment of equals is sometimes called "horizontal equity." Reasonably different tax treatment of people in different situations is referred to as "vertical equity," or sometimes "unequal treatment of unequals."

Benefits Received

Benefits received is still another principle used occasionally. According to this principle, taxpayers can expect a return benefit that is roughly commensurate with their tax payment. Therefore, taxes levied on this principle may be termed compulsory but requited.

The only important example of a tax based on benefits received is the excise on motor fuels, if all the revenues are dedicated for repair and expansion of the highway system. The more that motorists use the roads the more gasoline they use and the more tax they pay. In this case there is rough parity between the tax paid and the benefits received. In fact, historically gasoline tax revenues have supported a variety of governmental operations, not just highways, thus placing the gasoline tax back into the traditional "ability to pay" category.

Taxes based on benefits received are very nearly like governmental fees or user charges already discussed in the previous section of this chapter. The difference is, perhaps, in the degree of "voluntarism" on the part of the payee. For example, toll roads fees are true user charges because there is usually another parallel highway that does not charge a toll. People do not have to use toll roads but everyone is compelled to pay gasoline tax either directly at the gas pump or indirectly in the form of high prices for the merchandise they buy. In any case, taxes are, in the overwhelming number of cases, based on ability to pay. The gasoline tax may be called the exception that proves the rule.

Regressivity v. Progressivity. The three most prevalent measures of ability to pay are income, sales (consumption) and property (wealth). Of these three, income is possibly the most generally accepted measure of personal well-being. Nearly all taxes, whatever the base, are paid out of current income, and when we say that people are "poor" or "rich" we generally mean to imply something about their personal income. The tax on personal income is one of the very few which lends itself to a "progressive" rate structure. Progressive taxes allow society to redistribute material well-being among its members by taxing at different rates. Regressive taxes, on the other hand, tax everyone at the same rate. Popular analysis of tax structures as a whole measure incidence by income class. Under a wide variety of assumptions about tax incidence, income taxes are progressive; sales taxes are regressive, as reflected in Table 4:8.

The regressivity of the property tax is not so clear, with recent economic analyses. The argument for regressivity begins with the irrefutable observation that low income households usually spend all their income on consumables, while successively higher income families are likely to invest successively higher proportions of their income into business, stocks, savings accounts, apartment buildings and the like. These investments constitute a kind of property.

Rather than incur the tax burden themselves, however, property owners, who are relatively wealthy, often are able to pass on the bulk of their taxes to consumers of their products and services. For instance, landlords shift the tax to tenants through increased rents, and businessmen include the costs of the taxes they pay in the price of their products. Since low income groups spend all or nearly all their income on consumables, while higher income groups save a much larger share, the property tax can be considered regressive. With owner-occupied houses, on the other hand, the owner is the consumer and the tax cannot be shifted.

Two contemporary economic views directly refute the regressive assumption about property taxes.[17] According to the first, most of the tax cannot be transferred to consumers. Instead the burden is borne by owners of property—landlords, businessmen, corporate stockholders and the like. Since property ownership is concentrated in the higher income classes, the no transfer assumptions would make the tax progressive.

A second revisionist view recognizes that some transfer may take place, but claims that previous methods of calculating tax burdens are based on incorrect assumptions. New calculations based on different assumptions, therefore, indicate that even if consumers do pay most of the property taxes, middle and upper income groups pay a greater percentage of their income in tax than was previously believed. The new calculations, however, are based on assumptions that are themselves highly questionable.

All sides recognize the difficulty of making statewide or national generalizations about the progressivity or regressivity of the tax. Farms, factories and houses, for example, are all taxable. But economists treat each category of property differently for purposes of analysis. Within the housing category alone, opinions differ about the tax treatment of renter versus owner-occupied housing, older houses versus newer ones and expensive houses versus cheaper ones. Finally, the variation in rates from jurisdiction to jurisdiction makes analysis more difficult. Economists may treat the first few mills of property tax levied in all jurisdictions in one way, but the tax rate differentials above the minimum level may be treated quite differently.

It is impossible here to discuss the full variety of views on this question. It follows that under either set of revisionist assumptions, the tax falls most heavily on the higher income groups. If the traditional view is accepted, the tax burden falls more heavily on low income groups.

Educational leaders are more interested in an answer to the progressive/regressive question than they are in the methods and assumptions used in studying it. If the tax is regressive, most people would agree that other methods of school financing would be more equitable. But if the tax is progressive, criticism of the local school property tax on the basis of equity would be less warranted, although other equity problems remain.

The uncertainty of tax experts concerning whether property taxes are regressive or progressive is significant in itself. School business and economic specialists are

Table 4:8 Distribution of Tax Burdens by Income Classes, 1966[a]
(Income classes in thousands of dollars; tax rates in percent)

Adjusted family income	Individual income tax	Corporation income tax	Property tax	Sales and excise taxes	Payroll taxes	Personal property and motor vehicle taxes	Total taxes
			Variant 1c				
0-3	1.4	2.1	2.5	9.4	2.9	0.4	18.7
3-5	3.1	2.2	2.7	7.4	4.6	0.4	20.4
5-10	5.8	1.8	2.0	6.5	6.1	0.4	22.6
10-15	7.6	1.6	1.7	5.8	5.8	0.3	22.8
15-20	8.7	2.0	2.0	5.2	5.0	0.3	23.2
20-25	9.2	3.0	2.6	4.6	4.3	0.2	24.0
25-30	9.3	4.6	3.7	4.0	3.3	0.2	25.1
30-50	10.4	5.8	4.5	3.4	2.2	0.1	26.4
50-100	13.4	8.8	6.2	2.4	0.7	0.1	31.5
100-500	15.3	16.5	8.2	1.5	0.3	0.1	41.8
500-1,000	14.1	23.0	9.6	1.1	0.1	0.2	48.0
1,000 and over	12.4	25.7	10.1	1.0		0.1	49.3
All classes	8.5	3.9	3.0	5.1	4.4	0.3	25.2

a/ Under Variant 1c, the corporation income tax and the property tax on improvements are included in adjusted family incomes of stockholders and property income recipients; under Variant 3b, (next page) half the corporation income tax and the entire property tax on improvements are regarded as indirect taxes and are distributed among all family units in calculating adjusted family income

Table 4:8 (Continued)

Adjusted family income	Individual income tax	Corporation income tax	Property tax	Sales and excise taxes	Payroll taxes	Personal property and motor vehicle taxes	Total taxes
			Variant 3b				
0-3	1.2	6.1	6.5	9.2	4.6	0.4	28.1
3-5	2.8	5.3	4.8	7.1	4.9	0.4	25.3
5-10	5.5	4.3	3.6	6.4	5.7	0.3	25.9
10-15	7.2	3.8	3.2	5.6	5.3	0.3	25.5
15-20	8.2	3.8	3.2	5.1	4.7	0.3	25.3
20-25	9.1	4.0	3.1	4.6	4.1	0.2	25.1
25-30	9.1	4.3	3.1	4.0	3.6	0.2	24.3
30-50	10.5	4.7	3.0	3.5	2.6	0.2	24.4
50-100	14.1	5.6	2.8	2.4	1.3	0.1	26.4
100-500	18.0	7.4	2.4	1.7	0.7	0.1	30.3
500-1,000	17.7	9.0	1.7	1.4	0.4	0.2	30.3
1,000 and over	16.6	9.8	0.8	1.3	0.3	0.2	29.0
All classes	8.4	4.4	3.4	5.0	4.4	0.3	25.9

Source: J. A. Pechman and B. A. Okner, *Who Bears the Tax Burden?* (Washington: Brookings) 1974, 59.

no longer justified in asserting as they once did that the property tax is definitely a regressive tax, thus increasing the respectability of the property tax among experts, while popular opposition to it has remained strong.

Taxes on Wealth

Another group of taxes can be called generally, "taxes on wealth"—that is, anything that can be sold to produce income in the future. This category includes the tax on real and personal property discussed previously, business assets not taxed as real property, stocks, bonds and other intangibles. These taxes together constitute a major source of governmental revenue, but one with new, associated inequities.

One criticism of taxes on wealth, including the real property tax, is that the rates and bases vary among different jurisdictions. Local school revenues frequently are a function of the wealth of the community in which the school system is located.[18] One possible solution, discussed elsewhere, would be a uniform state-wide property tax.[19]

An even clearer inequity is that different forms of wealth are taxed differently by the same local government. Personal property often escapes taxation entirely even though real property may be taxed heavily in that same jurisdiction. With the personal property category, licensed or registered assets such as stocks, bonds, cars or pleasure boats are more likely to be taxed than unlicensed assets. It is clear that those with the same "ability to pay," pay different amounts depending where and in what form they hold their property. But even within the same category of property, valuation for tax purposes usually is difficult. These considerations mean that taxation of wealth consistently violates equal treatment criteria.

On the other hand, wealth taxes have many positive features. They are among the most redistributive of all taxes since wealth is highly concentrated. The principle of wealth taxation is widely accepted; it is a fair measure of ability to pay, and because real estate is not moveable, this is the one form of taxation entirely suitable for all three levels of government, including local government.

The serious objection to the income tax on equity grounds lies not with its theory but with its practical operation. Suffice it to say that tax fairness or unfairness, like beauty, is in the mind of the beholder. To the extent that citizens and voters believe the income tax as it presently operates is unfair, it is. Loopholes undoubtedly help explain people's negative perceptions. As a result of these criticisms, the tax must certainly be considered as a less valid measure of ability to pay.[20]

Of the three major tax categories, sales taxes would seem to have the weakest claim on ability to pay grounds. Consumption is not as broad a measure of economic well-being as either wealth or income. Funds which are not spent for consumption, that is, savings, avoid the tax entirely. But on the equal treatment criterion, sales taxation fares very well indeed. Consumption is a much less ambiguous concept than income and much less elusive than wealth. Everyone who makes the same purchases pays the same amount.

Since most excise taxes are largely unrelated to either wealth or income, they are considered to be particularly poor measures of ability to pay. Narrowly based taxes on specific commodities have, nevertheless, been a mainstay of governmental revenue systems for centuries, before equity concepts were developed to the extent they have been today. Still, moderate excises seem to be widely accepted. What they lack in contemporary justification, excise taxes make up for in historical legitimacy.

Overall consumption is a much better measure of economic well-being. Therefore, a general sales tax does have a stronger claim of legitimacy than excises on grounds of ability to pay. Comparing different persons with the same income, sales taxes would seem to be fair. Horizontal equity is not much of a problem. The problem is vertical equity. The retail sales tax, as it presently operates, is not distinctly progressive throughout the income range since the well-to-do save a larger proportion of their income and spend a smaller share. Where a degree of progression can be built into the concept of sales taxation, society would at least have that option. And sales taxation would fare better on the basis of ability to pay.

Other Considerations in Evaluating and Selecting Taxes

Income, wealth and consumption are, of course, overlapping measures, but each is sufficiently different that a tax on any one of them affects individuals differently. People will argue about which measure is best, but on consideration of the equities and inequities associated with each tax, few of us would want to abandon any of these measures entirely.

In the debate over the various tax instruments, one must keep in mind the subtle differences between the "ability" and the "equal treatment" criteria. Both are equity concepts, but ability to pay is by far the more nebulous and controversial of the two. Yet ability is also the more fundamental consideration. If there is not consensus on ability to pay, we cannot possibly decide who the "equals" and "unequals" are, and the tax cannot be considered equitable. Income and wealth taxes may be preferred as better theoretical conceptualizations of ability to pay, while the equity of sales taxation derives more from its practical operation.

Costs of Tax Administration and Compliance

If the government's costs of collecting a tax are high, less money remains to finance government services. Therefore, the generally accepted principle is that costs of collecting revenues should be as low as possible. Since compliance costs place an additional burden on the taxpayer over and above the burden of the tax itself, the taxpayer should not have to devote too much personal time or money in meeting his or her tax obligation. These concepts are quite straightforward, even though we may not often think about them.

Some taxes that fail according to other criteria, rank high on this one, and vice versa. Costs of collecting the federal cigarette tax, for example, are almost nil. (There are automatic counting machines at the factory that figure the tax continuously.) But we would hardly consider that cigarette smoking is a good measure of ability to pay! The income tax on the other hand, which is a good measure of ability to pay, ranks near the bottom on compliance and administrative costs. It is the only tax requiring substantial amounts of taxpayers' time and armies of lawyers or tax preparers and other paid specialists, not to mention the Internal Revenue Service itself. General retail sales taxes collections have very small collection costs. Owners of retail businesses act as the tax collectors. Administrative costs in connection with the property tax are somewhat higher, particularly if property is revalued frequently, as it should be to meet equal treatment criteria. Low cost administration and compliance certainly will not be considered as important ethically as the criterion of ability to pay. But the illustration does show how one's estimation of various tax instruments can change depending on which criteria are employed.

Certainty, Avoidance and Evasion

Since paying tax brings the payer no commensurate benefit, most people do not like to pay. For this reason paying the tax should be inevitable. The amount of tax owed by every taxpayer should be evident and unambiguous. There should be no over or under payments. This concept is called certainty. Illegal escape from a tax is called evasion. If an individual or business escapes the tax legally, it is called avoidance. By contrast, a tax where calculation of payments is open to many interpretations, or one that can be overcome easily by movement or concealment of the base, is undesirable.

All the major taxes have problems according to this criterion, though for different reasons. Income tax laws are so complex that great ambiguity arises. Corporations which operate in more than one state, for example, will try to minimize their income in a high tax jurisdiction, while maximizing income elsewhere. Unreported cash payments and the flourishing "underground economy" are factors complicating the collection of income taxes.

In the category of wealth taxation, this criterion is the only one justifying different treatment of different forms of property. Personal property taxation certainly would be used more but for the fact that movement and concealment are so easy that the tax is difficult to enforce. This same criterion justifies heavy taxation of real property. But even here the criterion of certainty is violated because of all the problems associated with property valuation.

Taxes on consumption (sales) violate this criterion too, but principally because of inter-jurisdictional differentials in tax rates. People will buy commodities in low tax jurisdictions where it is feasible for them to do so. A national sales tax levied at the source (where the commodity is produced) would fare best on this criterion.[21]

Revenue Adequacy, Stability and Elasticity

Past experience with our multi-source revenue system clearly shows that sales and property taxes are more stable over long periods of time, whereas progressive income tax receipts rise more sharply in good economic times and fall more rapidly in bad times.

There is considerable disagreement as to whether elasticity or stability is a more desirable feature. In periods of economic prosperity, politicians usually favor elastic taxes since government services can be expanded without the necessity of raising tax rates. But, of course, this very characteristic can come back to haunt governmental policies. In bad times, demands for some government services, such as welfare and unemployment compensation, grow rapidly even as revenue receipts are falling. Balanced budgets require tax increases to service reductions in other areas of government. Stability means a steady revenue source in both good and bad economic times.

The apparent desirability of both features adds further justification to the rationale for a mixed, multi-source revenue system that can serve state and national needs under a wide variety of economic conditions.

Taxes as an Influence on Human Behavior

Taxation is one of the most effective behavioral modification devices known.[22] People prefer to avoid taxes where possible by pursuing those activities that are lightly taxed or entirely untaxed. And for this very reason, governments require taxes that are so broadly based that people pay them almost no matter what they do. As citizens we want one thing, and as individual taxpayers we want something quite different. Indeed, this is a paradox of humanity, with which policy makers must continually wrestle.

In a democratic nation with an economy, largely based on private enterprise, such as that of the United States, the traditional presumption is that individuals should be able to dispose of their economic resources as they see fit. Taxation should not interfere with individual savings and consumption preferences. Of course, it has long been recognized that taxes inevitably must influence individual behavior in the sense that, after paying them, people's income is reduced. It is expected people will spend their remaining income in the same way they would have if they had had the same amount of money before the taxes. For example, if a business enterprise has $25,000 and is taxed $3,000, it should spend the remaining $22,000 as it would have had there been no tax at all. This principle is called tax neutrality, and theoretically, has been a guiding principle for most tax policy makers.

At the same time it has long been recognized: 1) that complete neutrality is nearly impossible to achieve; and 2) that people do not always dispose of their money in socially useful ways. Furthermore, the fact that taxes are an effective influence on human behavior is a bit of knowledge not lost on politicians. For these reasons, governments never aim at complete neutrality. The principle of some governmental influence on human behavior through the tax system is accepted by nearly everyone, though the extent and nature of this influence is controversial.

None of the major taxes are neutral. Income taxes probably encourage people to substitute leisure for remunerative work, since leisure is not taxed.[23] Wealth taxes discourage investment and capital formation and, thereby encourage consumption, while sales taxes do just the opposite. Narrowly based taxes, like selective sales, are the worst offenders in this regard. They direct consumers away from the few heavily taxed commodities to the others.

There are many cases where governments impose especially heavy taxes on doubtful human activities or encourage desirable activities through various forms of tax. For example, the higher rates of tax on distilled spirits and tobacco stem partly from the historical desire to limit their consumption. Certain deductions and credits applicable to the income tax derive from the government's desire to foster a number of activities thought to be worthwhile. Churches, schools and other eleemosynary institutions pay no property taxes for the same reason, and food is exempt from most sales taxes. A very large variety of tax provisions are designed to spur business investment and encourage capital formation. The list of various tax provisions of this sort is very long indeed. These are sometimes called "tax expenditures," and may be viewed as some sort of compromise between strict neutrality and complete government planning of the economy.

In summary, we can say that neither the principles of neutrality nor governmental direction are or ever have been fully accepted. The more realistic goal is that taxes should aim at promoting worthy activities and purposes while at the same time allowing the private economy broad discretion to use economic resources as it sees fit.

Tax Trends for the Late 1980s

Educational leaders not only need basic knowledge about taxation, but also a change in attitude toward tax policy. It seems clear that the present decade will be viewed as one distinctly different from the previous one in many ways, including tax policy. At the national level, concern for balanced budgets has replaced the concern for rampant inflation. At the state and local level, the electorate seems less prone now than in the last decade to pass tax or expenditure limitations. The period of Propositions 2 1/2 and 13 seems to have passed us by. This does not mean, however, that attitudes toward public sector outlays necessarily have improved. Unfortunately, large portions of the public still seem to view governmental activities with some suspicion.[24]

Within the present climate of greater concerns for balancing the federal budget and a slightly less hostile attitude toward state-local spending, five potential trends can be identified.

1. A shift of taxing responsibilities away from the federal government.
2. A "revolt" against income taxes as they are presently structured.
3. A searching for new, more acceptable tax instruments.
4. A return to use of the property tax for schools.
5. A consideration of tax credits for non-public schools.

A Shift Away From The Federal Government

Since the election of 1980, reduction of federal expenditures has been an expressed policy goal of the Reagan administration.[25] The goal has, to mid-decade, proven to be elusive. Rates of increase in federal spending have been reduced from double digits in the inflation-ridden 1970s to single digits in the present decade. Nevertheless, federal spending increases still outpace both state and local spending growth and growth in the gross national product in most recent years.[26] Federal spending growth has been diminished, but by no means has it been halted.

One scenario for the late 1980s, then, would be a continuation of the present trend, reducing federal spending growth even further. In such a situation, state and local taxes might be expected to increase somewhat, as lower levels of government begin to assume the services formerly financed by Washington. It does not seem likely, however, that states will fund governmental services like education as fully as past federal administrations have. State and local revenue structures, which are relatively inelastic, simply will not permit it.

A "Revolt" Against Income Taxes

Even though most professional economists still view the personal income tax favorably, the electorate is growing increasingly hostile to it. When asked to name the "worse tax . . . that is, the least fair," about one-third of the electorate names the federal personal income tax. (Another ten percent identify their state's income tax as the "least fair" tax.) These figures are up substantially from ten years ago.

Politicians have taken this trend to mean that the electorate is calling for: 1) a reduced rate in the over-all income tax; and 2) a broadening of the tax base to eliminate certain deductions and credits now written into the law.[27]

One little discussed effect of the proposed legislation is its likely effect on states' revenue structures. Since many state income taxes are fundamentally based on the federal income tax structure, different states are likely to be affected differently by federal tax law changes. This could impact directly on state school financial aid, as states find they have shortfalls or surpluses in their treasuries.

Tax Instruments

When asked what tax they mind least, or alternatively, what tax they would wish imposed if governments need additional revenue, people usually name the sales tax. Despite the drawbacks discussed earlier in this chapter, general retail sales taxes seem to be by far the least unpopular form of taxation.[28] And on this matter, too, the popular majority disagrees with many leading economists.

The "new" tax instrument most often discussed is the *value added tax*, a national sales tax which presumably would be levied on all purchases other than necessities such as food and drugs. Unlike the retail sales taxes with which we are familiar, the value added tax (VAT) would be levied on the producers and wholesalers as well as retailers. The tax would be embedded in the final cost of goods or services, not added to the sales price. The tax is widely used in foreign countries and, like other forms of sales tax, relatively easy to administer.[29]

At the state level one "new" and rapidly growing source of revenue is *parimutuel taxation*. Nearly every state engages in some form of tax on wagering in some form: bingo, card rooms, casinos, jai-alai, dog and horse racing, lotteries and/or off-track betting. Revenues from these sources are growing rapidly in many states, but they still make up only a small percentage of the total. Maryland is the state which relies most heavily on this revenue source, but even there, taxes raise only about five percent of the state's general revenues. In most states parimutuel taxation raises only one or two percent of revenue needs.[30]

Both the VAT and parimutuel taxation raise substantial questions according to the criteria for taxation discussed previously. For this reason their political future is much in doubt. The relatively narrow base of parimutuel taxes renders them relatively unimportant as a potential source of school support. The VAT, however, could potentially be of great help to schools.

A Return to the Property Tax

Popular distaste for the property tax reached its peak in the early 1970s, shortly after the famous *Serrano* decision on California school financing and just before passage of Proposition 13. Popular opposition to it has diminished since then.[31]

Under one scenario, declining federal revenues for schools, plus the relatively inelastic tax structures of many states, will mean an increase in local school property taxes.[32] This almost surely would not be a welcome development for proponents of fiscal equality and inter-district expenditure equalization. Property taxes have been the historic cause for school financial inequalities.

Tax-credits for Non-public Schools

Tax credits for parents of non-public school children are another initiative proposed by the Reagan Administration, with some bipartisan support. At this writing the size of the federal budget deficit, among other considerations, makes enactment of this tax credit unlikely. The State of Minnesota, however, has enacted tax credit legislation applied to both public and private school parents and other states are considering similar measures.[33]

Effects of such initiatives on the public school revenues cannot be known. Inclusion of private schools in governmental finance measures might build support for education over-all. All families would benefit. Others argue that every dollar given to private schools, even though a tax credit, is a dollar lost to public education. Tax credits are likely to remain a contentious issue throughout the decade.

Empirical Data

An important source of information in the development of tax policy is the extent to which states and localities actually use the various types of taxes discussed in this chapter. By far the most widely used index of actual tax utilization is developed by the Advisory Commission on Intergovernmental Relations (ACIR), an independent agency of the federal government. They measure two concepts: tax capacity and tax effort in the states. Measurements assume that each state has a "representative" tax system; that is, every state's range of tax instruments is like every other state's. The number 100 is the average for all states together. For example, in 1981 Arkansas tax capacity was 82 percent of the national average and its tax effort was 79 percent of the national average. A fuller explanation of the ACIR methodology is explained at the bottom of Table 4:9. An appropriate interpretation enables readers to compare how their state is doing relative to other states.[34]

Summary

This chapter has dealt with different tax instruments used by all governments without detailed reference to one government. This would seem an appropriate orientation, for the tax system as a whole is the ultimate concern of public policy more than any single tax, any one public service or single level of government. We call this system as a whole the "tax structure." The term is somewhat misleading, because unlike a physical structure which is fixed and permanent, the tax structure is constantly being changed.

The discussion indicates that no tax receives a "passing grade" on all criteria. It is quite unreasonable to expect any one tax to have all the characteristics we would think appropriate for the tax structure as a whole. Each tax has unique virtues and defects. With respect to a single tax instrument then, we must impose some less demanding tests. Does it have some highly desirable features? Can its undesirable features be mitigated through the use of other tax and expenditure instruments? According to these two somewhat less stringent criteria, all the major taxes and

Table 4:9 Representative Tax System Tax Effort Indices for 1981 and Selected Prior Years[1]

State	1981	1980	1979	1977	1975	1967
U.S. Average	**100**	**100**	**100**	**100**	**100**	**100**
New England						
Connecticut	103	100	102	103	99	93
Maine	113	111	110	100	104	105
Massachusetts	134	135	144	133	129	121
New Hampshire	74	75	78	73	75	81
Rhode Island	130	123	121	114	112	105
Vermont	105	104	110	104	108	119
Mideast						
Delaware	87	89	96	80	84	90
Dist. of Col.	145	131	132	118	94	90
Maryland	107	109	109	105	106	103
New Jersey	112	112	118	113	103	97
New York	171	167	171	168	160	138
Pennsylvania	105	104	105	94	93	99
Great Lakes						
Illinois	105	102	99	96	99	84
Indiana	88	84	84	83	92	95
Michigan	116	116	113	109	106	100
Ohio	89	87	86	78	80	82
Wisconsin	120	116	118	113	115	124
Plains						
Iowa	98	96	93	90	93	104
Kansas	87	88	87	89	85	96
Minnesota	109	111	115	112	117	119
Missouri	81	84	82	80	84	86
Nebraska	95	102	98	98	85	78
North Dakota	74	79	78	88	92	97
South Dakota	93	88	84	87	87	107
Southeast						
Alabama	91	85	86	79	79	89
Arkansas	79	86	81	78	78	83
Florida	73	74	78	73	74	84
Georgia	97	96	96	89	89	92
Kentucky	88	89	87	84	84	85
Louisiana	77	78	82	79	87	90
Mississippi	95	96	97	94	96	98
North Carolina	95	97	91	87	86	94
South Carolina	95	95	91	86	85	97
Tennessee	87	84	87	82	79	87
Virginia	90	88	88	88	87	90
West Virginia	83	82	82	80	85	96
Southwest						
Arizona	106	117	115	110	108	109
New Mexico	89	83	85	77	85	92
Oklahoma	73	72	74	72	73	80
Texas	65	65	64	68	68	75
Rocky Mountain						
Colorado	84	90	96	95	90	106
Idaho	87	88	90	89	90	105
Montana	92	92	88	94	92	93
Utah	97	101	99	91	89	111
Wyoming	73	74	83	82	70	79
Far West						
California	100	102	95	117	119	108
Nevada	62	60	65	62	70	71
Oregon	101	93	93	92	96	101
Washington	92	94	96	94	101	106
Alaska	184	166	129	130	76	104
Hawaii	126	124	128	115	119	135

1/ Personal income based index of tax effort is formulated by first dividing each state's and local taxes by state personal income, and then indexing each result to the average for all states (i.e., national total of state-local taxes divided by national personal income). 100 becomes the index for the U.S. average.

Source: U.S. Advisory Commission on Intergovernmental Relations *1981 Tax Capacity of the Fifty States*, A-93 (Washington, D.C.: U.S. Government Printing Office, 1983), Table 6, p. 12.

most of the minor ones now in use are acceptable, although the relative reliance on each can be debated.

The political controversy over taxes can be viewed as a debate over the relative importance of the criteria discussed. For example, those who think ability to pay is more important than certainty and avoidance may favor income or wealth taxes. Equal treatment of people in the same circumstances may argue for sales taxes, and so on. Political judgments as to the relative importance of the criteria will change with the passage of time. But the criteria themselves are likely to remain with us in the future as they have in the past.

Over the years we have noted substantial shifts in tax structure. States collect a greater proportion of all taxes than they used to, and the states' share may grow even further due to federal fiscal retrenchment. Income taxes have become by far the leading tax instrument; there is now serious questions about the fairness of the burden and the efficient administration of this tax instrument. Likewise, intergovernmental revenue transfers have grown greatly, divorcing to some extent the taxing functions of government from the spending function.

There are other more recently emerging trends that relate as much to the magnitude of the total tax burden as to reliance on any particular tax. Federal income tax rates have been reduced recently, even as revenues have grown. At the federal level, government deficits continue to be a concern, and proposals are made for amendments to the Constitution that would require a balanced national budget. These new emphases suggest that political and social priorities have emerged toward the end of the last decade which will continue to shape tax policy through the present decade.

In such a political and economic climate it is highly unlikely that school finance can remain on its own, isolated from broader economic events. In the future, education's prosperity is likely to depend, to some extent, on the prosperity of the broader economy. If so, then education may no longer be called a "growth industry" but a "cyclical industry" that depends for its success on an over-all healthy economy.

The present period then presents challenges to school business administrators and other educational leaders, forcing them to obtain new knowledge and skills beyond those that sustained the profession in the past. Simply mastering the technicalities of school funding and budgeting will not be enough. Understanding the broader economic trends and concepts will be essential for administrative planning, influencing policy making and managing schools in the future.

NOTES

1. Adapted from Chapter 3 in *Introduction to School Finance*, by Thomas H. Jones, Jr., Copyright © 1985 by Thomas Jones, Jr. Used with permission of Macmillan Publishing Company, New York, a Division of Macmillan, Inc.

2. For further discussion in basic texts see L.L. Ecker-Racz, *Its Your Business: Local and State Finance* (New York: National Municipal League, 1976); J.A. Maxwell and J.R. Aronson, *Financing State and Local Governments* (Washington, DC: Brookings, 1976); E.K. and J.M. Browning, *Public Finance and the Price System* (New York: Macmillan, 1983). A recent empirical examination of the entire, federal-state-local tax structure appears in D. Phares' "The Interstate Distribution of Federal State and Local Tax Burdens in the United States," *Journal of Education Finance*, 9 (Spring, 1984), 407-439.

3. R. Guenther, "California Tax Cuts Have Led to Higher New-Home Prices," *The Wall Street Journal* (March 17, 1982), 29.

4. Famous proponents of this view were the English socialists Beatrice and Sydney Webb, see e.g., *National Finance and a Levy on Capital: What the Labour Party Intends* (Westminster: The Fabian Society, 1919). Economists today often reject this view that tax systems can measure the psychological dispositions of people. Equity concepts form the basis for progressive taxes today.

5. See e.g., J.A. Pechman, *Options For Tax Reform* (Washington, DC: Brookings, 1984).

6. For example, the personal exemptions for couples filing a joint state income tax return were $9,000 in Louisiana and $9,500 in Mississippi in 1983. Other states, such as Connecticut, tax only the income derived from a narrower base such as interest and dividends. See Advisory Commission on Intergovernmental Relations *Significant Features of Fiscal Federalism, 1982-83 Edition* (Washington, D.C: Advisory Commission on Intergovernmental Relations, 1984).

7. This artifact of a progressive rate structure becomes clear through an example. Suppose there is one taxpayer paying at 50 percent rate and a second lower income taxpayer at 30 percent. Both have the same deduction, say, $100. The first taxpayer saves $50 from his tax bill, $100 x 50% = $50; the poorer taxpayer saves on $30, 100 x 30% = $30. If the $100 item had been a credit instead of a deduction, both persons would have payed a full $100 less in tax. Of course the government also would have given up $200 in revenue rather than only $80.

8. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1979-80 Edition* (Washington: Advisory Commission on Intergovernmental Relations, 1981), 95, 131.

9. For a more detailed summary of the controversy plus copious references to the scholarly literature see J.A. Pechman and B.A. Okner, *Who Bears the Tax Burden?* (Washington: Brookings, 1974), 24-43.

10. Ibid.

11. C.S. Shoup, *Public Finance* (Chicago: Aldine, 1969).

12. *Significant Features*, ACIR.

13. W.V. Grant and T.D. Snyder, eds. *Digest of Educational Statistics, 1983-84* (Washington DC: National Center for Educational Statistics, U.S. Government Printing Office, 1983), 27, 78.

14. New York Assembly Task Force on School Finance and Real Property Classification, *The Legislative Response to the Property Tax Crisis* (Albany: The Capitol, 1979), 9.

15. R.C. Wood, *Property Assessment Practices for School Tax Purposes* (Reston, VA: Association of School Business Officials, 1985); R.C. Wood, "An Update on 1982 Real Property Tax Practices for Financing Public Elementary and Secondary Education," *Journal of Education Finance*, 9 (Spring, 1984), 524-528.

16. *Significant Features*, (ACIR).

17. Both views are discussed in H.J. Aaron, *Who Pays the Property Tax? A New View* (Washington DC: Brookings, 1975).

18. This issue receives extended treatment in J. Coons, W. Clune and S. Sugarman, *Private Wealth and Public Education* (Cambridge: Belknap Press, Harvard University, 1970).

19. C.S. Benson, *The Fleischmann Report on the Quality Cost and Financing of Elementary and Secondary Education in New York State* (New York: Viking, 1973).

20. For a discussion of the issues surrounding ability to pay and equal treatment for the federal income tax see J.A. Pechman, *A Citizen's Guide to the New Tax Reform* (Totowa, NJ: Rowman and Allanheld Pub. Co., 1985).

21. H.J. Aaron, ed., *The Value-Added Tax: Lessons from Europe* (Washington DC: Brookings, 1981).

22. H.J. Aaron and J.A. Pechman, *How Taxes Affect Economic Behavior* (Washington DC: Brookings, 1981).

23. The other view is that income taxes encourage work, since people's disposable income is lowered by the amount of the tax. Certainly this view is correct for those people who want additional income more than added leisure time. But the income tax is still not neutral even under the alternative interpretation.

24. For a more detailed discussion see, R.J. Dworak, *Taxpayers, Taxes and Government Spending Perspectives on the Taxpayer Revolt* (New York: Praeger, 1980).

25. See e.g., *The Economic Report of the President* (Washington DC: U.S. Gov. Printing Office, 1984), 7-9.

26. *Significant Features*, (ACIR).

27. Pechman, *A Citizen's Guide*.

28. *Significant Features*, (ACIR) 91.

29. Aaron, *Value-Added Tax*.

30. *Significant Features*, (ACIR).

31. Ibid.

32. J. Augenblick, "The Importance of Property Taxes to the Future of School Finance," *Journal of Education Finance*, 9 (Winter, 1984), 384-393.

33. For a more detailed discussion of this issue see R. McCarthy and J. Skillen, *Disestablishment a Second Time: Genuine Pluralism for American Schools* (Grand Rapids, MI: Eerdmans Pub. Co.).

34. Wood, "An Update on 1982 Real Property Tax Practices."

5

Educational Accounting Procedures

Sam B. Tidwell

School business administrators have varied backgrounds in accounting education, yet they are in jobs where they are expected to interpret the school district's financial position for their faculty and staff, for their school boards and for voters. They need to understand what the school district's financial accounting structure is and what kind of financial reports should be produced by their accounting office. As chief fiscal officers, they need to know what financial statements mean and how to interpret them.

The purpose of educational accounting is to assure that citizens are provided the highest quality of education possible within the financial resources available to their school district, an objective requiring effective and efficient management of these resources. The school business administrator needs to know what these resources are, how they become financial resources of the school district, how these resources are converted into assets that may be used, how they are planned to be used and how they are actually used.

Accounting Functions in School Systems

A number of different accounting functions are used in accounting for school funds. Among them are financial management, internal auditing, the annual outside, independent audit and audits conducted by governmental agencies.

Financial Management

Financial management involves dealing with problems related to receiving the maximum revenue available to the school district, safeguarding all financial resources and controlling expenditures and financial commitments throughout the fiscal period as directed by the budget adopted by the board of education. School business administrators are employees of the school district who, therefore, are primarily responsible for operating the school system within its financial resources as directed by policies of the board of education.

This chapter presents accounting procedures that are used by management during the fiscal period to complete an accounting cycle. To illustrate the kinds of financial statements that these procedures are capable of producing, illustrations have been chosen from some of the comprehensive annual financial reports (CAFR) that earned the 1983 Certificate of Excellence in Financial Reporting awarded by the Association of School Business Officials International. It is beyond the scope of this chapter, however, to discuss all underlying public school accounting principles and financial reporting procedures in detail.

Internal Auditing

Conducted by employees of the school district, this function is involved in the problems of safeguarding the school district's financial resources. The internal auditor, as an employee of the school district, and members of the internal audit staff monitor the operation of the accounting system. The internal auditor reports to the board of education or the chief school officer and recommends to management ways by which it can operate an effective system of internal accounting and financial controls that are capable of producing timely, meaningful and reliable interim financial reports. The system of internal control and the work of the internal auditor are also primarily responsible for detecting and minimizing controllable losses and detecting fraud and embezzlement by employees of the school district.

The Annual Independent Audit

This is a function that relies heavily on the effectiveness of the school district's system of internal accounting and financial controls. The annual audit is conducted by one or more outside, independent accountants who are qualified by laws of the appropriate state to examine the financial statements of the school district in accordance with "generally accepted auditing standards." These accountants are qualified by education, by experience, practice and by professional examination to express, qualify or deny an opinion on the school district's comprehensive annual financial statements. They state whether in their opinion, the annual financial statements are presented in accordance with "generally accepted accounting principles applied on a basis consistent with the prior year."

Being subjected to examination by outside, independent accountants who are not employees of the school district or other governmental agency tends to safeguard the integrity of the school district's financial administrators. The audit report, containing the annual financial statement on which the outside, independent accountants express an opinion, is a major report used by members of the board of education and the public to determine that the financial resources of the school district have been, in fact, used for the purpose the taxpayer provided them. Creditors rely on the audit report as a basis for extension of credit. It is also an important document that is used by financial analysts to establish interest rates when the school district issues bonds and other long-term debt.

The objective of financial management is to receive an unqualified, outside independent auditor's opinion on the school district's comprehensive annual financial report. Although the word "comprehensive" is a relatively new addition to school financial reporting terminology, it is coming to mean that the financial statements of all funds and account groups used by the school district were included in the annual examination by the outside, independent accountants. This is the report toward which ASBO directs its certificate of excellence in financial reporting program.

Audits Conducted By Governmental Agencies

Each governmental agency which provides revenue to school districts through distribution of taxes and commodities may require its own audit staff to examine whether the financial resources of the school district are restricted in scope to those funds receiving revenue from taxes and commodities from that unit of government.

Unique Characteristics of Accounting for School Systems

Public school accounting is a unique field of accounting. Nevertheless, there are similarities with other fields of accounting, for example, the "theory of debits and credits." Textbooks used in university principles of accounting courses traditionally present the theory of debits and credits as it applies to profit-making enterprises, i.e., proprietorships, partnerships and corporations. This basic accounting theory has been expanded to apply to a "governmental accounting structure," a financial structure that has become generally accepted today as the most appropriate basis of accounting for entities operated by tax revenue for federal, state and local units of government. This governmental accounting structure has been further modified by ASBO to make it a useful basis of financial and managerial accounting and reporting for school systems.

ASBO has, in effect, modified the governmental accounting structure to a fund structure that meets the needs of school systems by eliminating special assessment funds, a fund concept widely used by other local and state units of government, but not used by school systems. Instead of referring to a certain group of funds as "governmental-type" funds, ASBO recommends that this group of funds be referred to as "budgetary funds." In effect, the theory of debits and credits has been expanded to apply not only to asset, liability, capital, income and expense accounts as used by profit-making entities, but also to include budgetary accounts such as estimated revenue, revenue, expenditure, encumbrance and appropriation accounts.

The account structure used for the general fixed assets account group, the general long-term debt account group and agency funds is significantly different from the account structure of other funds. The terminology for capital accounts used by business entities is changed to "fund equity" or "fund balance" and titles for income and expense accounts are changed to "revenue" and "expenditure" accounts in some funds. Additional accounts, frequently referred to as budgetary accounts, are used in budgetary funds to manage financial resources and to determine what administrative actions are needed to carry out the budget adopted by the board of education for the fiscal period.

Budgetary Accounts and Budgetary Funds

Budgetary accounts used for management purposes by school systems compare:

1. The budget's estimated revenue with revenue actually realized to date. The difference between estimated revenue and actual revenues is the amount that estimated revenue has not been realized or the amount that actual revenue has exceeded the budgeted revenue estimate to date. When this comparative procedure is used, the variance between amounts budgeted and the amounts actually realized causes management to ask "What additional administrative actions are needed if the school district is to receive all of its revenue from these sources?"

Table 5:1 SCHOOL DISTRICT
General Fund Interim Statements Comparing Budget Revenue with Actual to Date and Appropriations with Expenditures and Encumbrances to Date (For __________ month period ending* __________)

	See Schedule Number	Budgeted Estimated	Actual to Date		Unrealized Balance
Revenue:					
From local sources	2	$1,658,192	$1,647,533	Under	$ 10,659
From state sources, direct	2	1,763,835	1,773,346	Over	(9,511)
From state sources, redistribution of federal funds	2	35,595	26,509	Under	9,086
From intermediate sources, redistribution of federal funds	2	1,275	—	Under	1,275
From federal sources	2	2,874	9,200	Over	(6,326)
From other school districts in the state	2	23,453	25,171	Over	(1,718)
Total revenue	2	$3,485,224	$3,481,759	Under	$ 3,465

		Appropriations	Expenditures	Encumbrances	Unencumbered Balance
Expenditures:					
Instruction—elementary	3	$1,782,132	$1,467,843	$156,824	$157,465
Instruction—secondary	3	817,006	783,984	31,098	1,924
Instruction—special education	3	98,471	98,471	—	—
Instruction—summer school	3	23,000	—	23,000	—
Instruction—Title I	3	23,601	23,400	—	201
Instruction—federal grant	3	6,118	6,118	—	—
Administration	3	134,604	126,898	7,706	—
Transportation	3	58,486	51,742	5,000	1,744
Operation of plant	3	332,756	328,642	3,675	439
Maintenance of plant	3	36,038	34,750	985	303
Fixed charges	3	106,430	99,850	6,400	180
Capital outlay	3	26,415	26,415	—	—
Debt service	3	28,120	28,120	—	—

	See Schedule Number	Appropriations	Expenditures	Encumbrances	Unencumbered Balance
Tuition to other school districts in the state	3	2,047	2,047	—	—
Total expenditures		$3,475,224	$3,078,280	$234,688	$162,256
Excess revenues over expenditures		$ 10,000			

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*Table is taken from *Financial and Managerial Accounting For Elementary and Secondary School Systems* by S. B. Tidwell, Reston, Va.: Association of School Business Officials, 1984.

2. Expenditures and encumbrances (financial commitments) with legal limits established by appropriations. When expenditures or encumbrances exceed the legal limit, one or more unauthorized transactions have taken place that can result in an operating deficit or a fund deficit. This comparison, when frequently made during the fiscal period, assists management in avoiding unauthorized expenditures and financial commitments and creating either operating or fund deficits.

Encumbrances are contractual commitments in the form of purchase orders for goods or services that have not been filled. When the order is filled it becomes an expenditure. In budgetary funds it is necessary to record encumbances to prevent issuance of contractual commitments that could result in expenditures in excess of legal limits. An interim statement comparing budget (estimated) revenues with actual revenue to date and comparing expenditures and encumbrances with appropriations (legal limits) is presented in Table 5:1.

Other Terminology Changes

In school accounting, some funds use the term "expense account" as it is used by a business entity, but in other funds, other terms are used. For example, in a budgetary fund the term may be broadened and called an "expenditure account." In funds of this type not only are entries made to record usual current expenses of the fund, but also to record the fund's current expenses to acquire general fixed assets, to record current expenses caused by maturity of long-term debt and to record current interest expense incurred on long-term debt. Transactions of these kinds are "expenditures" and are recorded in the "expenditure account."

The fixed assets acquired by expenditures of budgetary funds are neither recorded as fixed assets of budgetary funds nor long-term liabilities of the school district recorded as liabilities in budgetary funds; instead they are recorded in the general fixed assets account group and the general long-term debt account group. Interest on long-term debt paid by a budgetary fund, however, is recorded as an expenditure.

The accounting procedures used to close expense and income accounts at the end of the fiscal period by a business entity are also used to close the revenue, expenditure and budgetary accounts of school systems, thereby making these accounting procedures consistent with accounting procedures used by other types of financial and business entities.

The Fund Structure: A School System's Financial Structure

A profit-making entity usually has only one group of self-balancing accounts known as its general ledger with adequate supporting subsidiary ledgers containing necessary subsidiary ledger accounts. In accounting for school systems, however, a more complex financial structure is used that is identified as a "fund structure." The financial structure is composed of a number of funds and account groups, each having its own general ledger with adequate supporting subsidiary ledgers. Each fund and account group used by the school system is designed to serve certain but limited purposes.

The fund structure recommended by ASBO for use by school districts is as follows:

Budgetary funds
  The general fund
  Special revenue funds
  Capital project funds
  Debt service funds
Account groups
  The general fixed assets account group
  The general long-term debt account group
Proprietary type funds
  Enterprise funds
  Internal services funds
Fiduciary type funds
  Trust funds, including both expendable trust funds and non-expendable trust funds
  Agency funds

Each fund and account group has its own separate, self-balancing group of accounts with underlying books of record which may be maintained either on a manual basis, or with mechanical, electric or electronic equipment.

The Purpose of Each Fund and Account Group

All funds and account groups used by a school system are created and abolished by recorded actions of the board of education. Because each has a specific, and therefore, restricted purpose, it is important to know the purpose of each. Brief descriptions of the purposes of the funds and account groups recommended by ASBO for use by school districts are as follows:

Budgetary Funds

The General Fund. The general fund is the most important of the funds and account groups. It is created at the inception of the school district and continues throughout the life of the school system. Its purpose is to provide the basic education, ongoing or foundation program.

Special Education Funds. Special revenue funds are useful when a temporary source of revenue is available to a school district to provide a special kind of educational program that is beyond the scope of the basic education or foundation program offered by the general fund, or for a program where cost is beyond the financial resources available in the general fund. When revenue from a temporary source ceases to be available for a special revenue fund, the fund is abolished by action of the board of education.

When temporary sources of revenue become relatively certain to be provided in future years, the "special kind of educational program" may be declared by the board of education to be a part of the school district's basic education or foundation program, and the need for a separate special revenue fund may cease. The accounts needed to continue to identify the cost of this added basic education program may become a part of the school district's general fund.

Capital Projects Funds. Capital projects funds become useful to a school district when large amounts of money are available from federal, state and/or local sources for the purpose of acquiring specific long-lived, general fixed assets such as land, buildings, machinery, classroom equipment and the like. A capital projects fund may be created for a project when all sources of the fund's revenue are restricted to that project. A group of general fixed assets may also be acquired by a capital projects fund when all sources of the fund's revenue are restricted to that group of general fixed assets.

Expenditures accounts required to record the school district's acquisition of general fixed assets are closed at the end of the life of the capital projects fund. The general fixed assets acquired are not recorded in the asset accounts of capital projects funds but, instead, they are recorded in the general fixed assets account group where they continue to be maintained as long as they remain in possession of the school district.

When all assets of a capital projects fund have been used for the purposes specified, all of its liabilities have been paid and the general fixed assets have been acquired, any remaining cash or other current assets may be transferred, by appropriate action of the board of education, to another fund of the school district. They may be returned, if required, to the source or sources originally providing the resources of the capital projects fund, or they may be disposed of in accordance with provisions specified by each of the sources at the time of providing them.

Debt Service Funds. A debt service fund is used to accumulate the assets necessary to pay off a specified, general long-term debt of the school system when that debt matures. A separate debt service fund should be created for each bond issue or long-term debt authorized and outstanding.

When long-term bonds are authorized to be issued, an asset accumulation schedule, frequently referred to as an amortization schedule, is prepared that shows the amount of revenue that should be provided each year to pay off the debt when it matures. When the debt is authorized by the board of education, the accumulation schedule becomes the authorization or basis for the budgetary entry.

The debt service fund's budgetary entry each year records the amount of revenue that is required from property taxes and the amount of revenue required from interest on the debt service fund's investment if the tax burden is to be spread equitably and if the principal amount of the bonds is to be accumulated each year over the life of the outstanding obligations.

The debt service fund's equity is restricted to retirement of the principal amount of the debt and, as such, it is appropriated each year. The account title to identify it as having been appropriated by action of the board is "reserve for debt retirement." The balance in the reserve for debt retirement should correspond at the end of each year with the amount required by the accumulation schedule.

At the end of each year, a variance may exist between what revenue should have been provided and what revenue was actually provided. As a result, a retained earning account is used to show the amount by which the debt service fund's equity exceeds or falls short of the accumulation schedule's requirements as shown in the reserve for debt retirement account. If earnings have been in excess of requirements, a credit balance appears in the retained earnings accounts. If earnings fall short of the fund's requirements as shown by the balance of the reserve for debt retirement account, a debit balance will appear in the retained earnings account. This debit balance focuses attention of management on the need for administrative and/or board of education action to be taken to avoid a default when the school district's outstanding bonds mature.

Account Groups

The General Fixed Assets Account Group. Tremendous amounts of money are invested by school districts in general fixed assets. These are long-lived assets such as land, building, machinery and equipment, that are acquired by the school system through the general fund, a special revenue fund, a capital projects fund or by transfer from a proprietary type fund from some source outside the school district. Because general fixed assets are expensive to replace, the general fixed assets account group is maintained to provide safeguards that tend to minimize and to disclose losses when they do occur, regardless of cause.

Any sale or disposition of a general fixed asset should be authorized by action of the board of education or its designated representative. Proceeds from the authorized sale of any general fixed asset can be traced to the fund that was designated by the board of education to receive it, thus tending to minimize the possibility of unauthorized use or disposition of proceeds from any sale of these assets.

General fixed assets are intended to be used anywhere in the school system in the educational process, as distinguished from fixed assets used in the operation of an enterprise fund, an internal service fund or a trust fund. The nature of the fixed asset determines the kind of internal controls that are required to assure taxpayers that the assets are being used for the purposes acquired. Auditors reconcile expenditures from the general fund, special revenue funds and capital projects funds for general fixed assets as well as transfers of fixed assets from proprietary type and fiduciary type funds with the general ledger accounts and the subsidiary ledger accounts of the general fixed assets account group. Without the use of the general fixed assets account group maintained on a basis consistent with generally accepted accounting principles during the fiscal period, large financial losses could occur that can be prevented.

Accounts that record depreciation of general fixed assets may be used in this account group.

The General Long-Term Debt Account Group. This account group is used when general long-term debt instruments are issued, usually in the form of long-term bonds or long-term notes payable. This group of accounts focuses attention on the kind of long-term debt that is outstanding as well as the amount, such as ten-year, eight percent serial bonds payable. It also shows the amount to be provided by the school district in future years and the amount that has already been provided in past years for the retirement of the principal amount of the debt. For management purposes, this account group can also show the total amount of interest payable in future years and the amount needed each year to pay interest. This procedure tends to minimize the possibility of overlooking the amount required for payment of interest and assure that each year's budget includes a provision for interest. No other accounts are maintained in this account group as it has no assets, fund equity, revenue or expenditures.

Proprietary Type Funds

Enterprise Funds. Accounting for enterprise funds parallels accounting for a business entity in that enterprise funds are created to produce goods and services for the school systems that may also be sold to the public. This fund structure is effectively used for school food services, for bookstores, for industrial arts programs such as automotive repair, for athletic programs and theaters where tickets are sold to others in addition to students of the school district and other similar income-producing school activities.

If a product is bought and sold in its original form, this type of fund will need asset accounts, including accounts to record its own fixed assets and related accumulated depreciation, and accounts to record current and long-term liabilities, capital, retained earnings, income, cost of goods sold and general and administrative expenses. Other income and expense accounts record such things as interest income and interest expense where applicable.

If the enterprise fund purchases raw materials, places them in a production process such as manufacturing in industrial arts programs, adds labor costs and other production costs and sells the products to the public, either a job order cost accounting structure or a process cost accounting structure can be effectively used.

Internal Service Funds. An internal service fund is created to account for the cost of producing either goods or services that are to be used exclusively by the school system. This concept is useful to school systems that have a central purchasing, warehousing and distribution department, a central computer service, a central garage and transportation department, a central maintenance department, a central printing department and so on. This fund structure can make it possible for the school system to determine whether it is to the advantage of the school system to produce its own goods or services or to buy them from outside contractors. The accounting structure for internal services funds is comparable to the accounting structure needed for enterprise funds. The major differences in these two types of funds is that the goods or services produced by an internal services fund are exclusively used with the school district itself.

Fiduciary Type Funds

The amount held by the school district in trust funds is held by the board of education as a trustee under the provision of a trust agreement. As a trustee, the board of education has duties and responsibilities not only as a custodian for the assets held in trust, but also responsibilities for management of the trust fund's assets, liabilities, principal, income and expenses.

Trust funds are of two types. One is a non-expendable trust fund and the other is expendable. A trust fund may be created by the board of education from its own resources. Most often, a trust fund is created by a gift to the school district that is to be used for the purpose or purposes specified in the trust agreement. Use of a separate fund for each non-expendable trust fund and a separate fund for recording earnings and expenses of each expendable trust fund tends to minimize the possibility of depleting the trust principal of a non-expendable trust fund. Each trust fund created should be authorized by action of the board of education.

Non-expendable trust funds. A non-expendable trust fund, by its nature, requires the board of education to act as the administrator of the fund and to take whatever action is necessary to keep the principal of the fund intact. The board is required to decide when to buy and when to sell investments of the type specified in the trust agreement.

A non-expendable trust fund has asset accounts for cash and for each of its investments, and liability accounts when necessary. The fund equity account is identified as the non-expendable trust fund principal. Theoretically, this principal amount will remain intact. A non-expendable trust fund does not have revenue and expense accounts that could increase or deplete the trust fund principal. If, however, a loss is sustained in the assets of a non-expendable trust fund, thus causing a reduction in its principal, the trust agreement may specify that such losses be eliminated by a transfer from the expendable trust fund. When a trust fund is created, a provision should be made in the trust agreement that gives the board of education some method of disposing of the non-expendable trust fund principal in the event that operation of the fund becomes impossible.

Expendable trust funds. An expendable trust fund may be created as a result of a transfer from any other fund of the school district that is authorized by the board or by earnings from investments held in the non-expendable trust fund. An expendable trust fund has asset, liability, a retained earning account and revenue and expense accounts. The retained earnings account reflects the amount of net earnings that are pending dispositions according to the terms of the expendable trust fund agreement.

Agency Funds. The assets of an agency fund are held by the school district as an agent, not as an administrator or manager. Thus, the board of education has only custodial powers and duties rather than administrative and management responsibilities as was the case in accounting for trust funds. Therefore, an agency fund should have only asset and liability accounts. It has no equity accounts.

The agency fund is useful when a school district operates a central payroll fund and a central treasury fund, and when money is collected from a class, a person or a group and held for another person, group or organization.

The Central Payroll Fund as an Agency Fund. A central payroll fund, operated as an agency fund, can simplify the account structure of all funds of a school district reducing the number of accounts used to record payroll expenses and related assets and liabilities. As a result, overall financial reporting can be simplified. To do this, the accounts needed in the central payroll agency fund are:

Cash
Due from the general fund
Due from (each) special revenue fund
Due from (each) capital projects fund
Due from (each) enterprise fund
Due from (each) internal services fund
Due from (each) expendable trust fund
Salaries payable
Federal income tax withheld and payable
Social security tax withheld and payable
State income tax withheld and payable
City income tax withheld and payable
Employee retirement deductions payable
Group hospitalization insurance premiums withheld and payable
Union dues withheld and payable
Savings bond deductions withheld and payable
Other liability accounts (where needed)
Salary and wages expenses
Employer's social security tax expense
Employer's state unemployment tax expense
Employer's federal unemployment tax expense
Employer's retirement contributions expense
Worker's compensation insurance expense

Employer's group hospitalization insurance expense

Employer's group life insurance expense

The staff of the central payroll department, based on salary and wage authorizations by administrative officers of each fund employing people, makes all salary and wage computations using time cards or attendance reports submitted to it by each employing fund. In addition, the staff of the central payroll department computes the amounts to be withheld from the salaries and wages as well as the employer's payroll tax expenses for each fund, thereby centralizing in one department the need for a trained staff position in payroll administration. The central payroll department maintains records regarding individual earning, sick and annual leave and all other payroll documents. It issues payroll checks to all employees and pays all payroll liabilities when due. Instead of each employing fund having to maintain accounts for the payroll liabilities and employer expenses, this system reduces the number of accounts in the general ledger and financial reports. For example, the number of accounts needed in the general fund to record its payroll could be reduced to the following:

- Salaries and wages (classified adequately for management purposes).
- Employment expenses (classified adequately for management purposes).
- Due to central payroll fund.

The responsibility for determining the qualifications, administering the functions of hiring, firing, promoting personnel, reporting attendance, granting annual leave or sick leave and raising money necessary to pay for personnel services remains the administrative responsibility of each budgetary, proprietary and trust fund that uses the services of the central payroll department.

The Central Treasury Fund as an Agency Fund. Many advantages can result from centralizing the school district's treasury function, i.e., the function of collecting, temporarily investing and disbursing all cash. Among the advantages are:

1) The cash position of the school district can be determined at any time for the district as a unit rather than by individual funds.

2) Only one person, operating with adequate internal financial controls, is needed to manage the temporary investment of available cash that would be idle otherwise. This procedure tends to assure the maximum interest revenue that can be earned by the school district on temporary investments of cash.

3) All disbursements are made over the signature of the school district's treasurer, giving assurance that each disbursement is supported by an effectively operating voucher system wherein each payment is supported by adequate, competent business documents.

4) Income earned on temporary cash investments in the central treasury can be distributed to each fund according to the average cash balance maintained by each fund in the central treasury. This procedure relieves each fund of the necessity for providing personnel that otherwise would be needed to manage cash and temporary cash investments.

Accounts needed in a central treasury fund operated as an agency fund are:

Cash in bank
Due from (individual) fund
Temporary investments
Interest receivable
Due to (individual) fund
Interest earned distributed to school district funds

The account needed by each fund using the services of the central treasury is "Due from Central Treasury" in lieu of a cash account. Since the central treasury is serving a banking function for each fund, at the end of each month each fund should prepare a bank reconciliation to confirm the accuracy of the fund's claim against the central treasury and to detect any errors that may have occured.

Books of Record

Books of record for each fund and account group include a general journal, additional specialized journals where useful, such as a cash receipts journal, a cash payments journal or check register, a voucher register and a general ledger with necessary subsidiary ledgers.

The journal, frequently referred to as the general journal, is a book of original entry in which each and every financial transaction of a fund or account group is first recorded. This analysis and recording procedure is referred to as "journalizing." It records each transaction and shows how the transaction affected one or more of the accounts.

Financial transactions of a similar kind tend to be repeated. Therefore, the general journal may be relieved of some repetitive types of transactions by creating special journals. For example, the general journal could be relieved of recording all cash receipts, but instead each cash receipt would be recorded in a cash receipts journal. A cash payments journal could record all cash payments, a voucher register could record all purchase of goods and services. The use of special journals makes it possible not only to relieve the general journal of the need to record these repetitive types of transactions, thereby simplifying the recording routine, but also its use encourages a division of labor.

The General Ledger and Subsidiary Ledgers

Accounts that form the trial balance of a fund or account group are referred to as its general ledger. A trial balance is prepared at the end of an accounting period to verify that all general ledger accounts are in balance, i.e., the total debits equal the total credits. If it does not balance, one or more errors have occurred and need to be corrected. Maintaining the accounts of each fund and account group in accordance with the accounting equation is one of the most effective methods of internal accounting control available to school systems. A trial balance is prepared at the end of a day, a week, a month or a fiscal period prior to undertaking the job of preparing financial statement for a fund or account group. An example of a trial balance is presented in Table 5:2.

Table 5:2 New Hope School System General Fund Trial Balance*
(Date)

Cash	$ 4,500	
Taxes receivable	22,000	
Temporary investment	3,000	
Loan to other fund - library	2,000	
Loan from bank		$ 1,000
Fund equity		10,000
Revenue from tax levy		30,000
Revenue from interest and penalties		500
Salaries expenditures	10,000	
Total	$41,500	$41,500

*Table is taken from *Financial and Managerial Accounting For Elementary and Secondary School Systems* by S. B. Tidwell, Reston, Va.: Association of School Business Officials, 1984.

Individual general ledger account titles identify a certain asset, liability, fund equity, revenue or expenditure account, or the title may identify a kind of a group of similar accounts by title, such as accounts receivable. If the latter is the case, the one account in the general ledger is referred to as a controlling account. Because each account receivable may be a receivable from a different source, person or business entity, a supporting group of accounts is maintained separately to identify each source, person or firm, the amount receivable from each and so on. The accounts supporting a controlling account in the general ledger compose a subsidiary ledger.

The total of all accounts in a subsidiary ledger must equal the balance of the controlling account in the general ledger (that requires the use of a subsidiary ledger). When a trial balance is prepared, a schedule of each subsidiary ledger is prepared to verify that the subsidiary ledger is in agreement with the controlling account in the general ledger. If it is not, one or more errors have occurred that must be corrected. A controlling account, its subsidiary ledger and a schedule of subsidiary ledger account balances is presented in Table 5:3.

Table 5:3* Example of a General Ledger and Subsidiary Ledgers

The General Ledger

Taxes Receivable, 19-0		
CR23	280	

Taxes Receivable, 19-1		
CR25	175	

NOTE: the controlling accounts in the general ledger show the total of the amounts shown in detail in the subsidiary ledger accounts below.

Subsidiary Taxes Receivable Ledger

Albert Bella		
CR23	150	

Abraham Adam		
CR25	100	

Douglas Daye		
CR23	130	

Charles Covenart		
CR25	75	

City of A School System
Schedule of Accounts Receivable (Date)

Albert Bella	$150
Douglas Daye	130
Total, General Ledger Controlling Account	$280

*Table is taken from *Financial and Managerial Accounting For Elementary and Secondary School Systems* by S.B. Tidwell, Reston, VA: Association of School Business Officials, 1984.

The Posting Process

Information recorded in the general journal or in a special journal of a fund or account group is transferred to individual accounts in the general ledger and to related subsidiary ledgers of the fund or account group. This "transferring process" is referred to as posting.

If each financial transaction is recorded and posted when it occurs, the accounts of a fund or account group are "up to date." Financial statements prepared from them, therefore, serve as a basis for effective and timely management actions as the school district moves through the fiscal period.

Bases of Accounting

Timing the recording and reporting of transactions that involve recognition of revenue or income and expenditures or expenses is the factor involved by use of the term "basis of accounting." Two bases of accounting are used by school districts, accrual basis and modified accrual basis. The accrual basis is used in proprietary type funds and recognizes income in the accounting period in which it is earned or in which it becomes measurable, and expenses in the fiscal period in which they are incurred, if measurable. The modified accrual basis is used by the budgetary funds and expendable trust funds. According to this basis revenues are recorded when they are susceptible to accrual, i.e., both measurable and available, and recognized in the accounting period in which the liability is incurred. "Available" refers to collectibility within the current fiscal period or soon enough thereafter to be used to pay current liabilities. Some revenue may be more accurately reported as "deferred liabilities" and some expenditures may be more appropriately allocated to future fiscal periods by being reported as "prepaid assets." Decisions about whether it is deferred revenue, revenue, an expenditure or a prepaid asset become important when they are material in amount. Results of these decisions are recorded as "adjusting entries" at the end of the accounting period. They affect the financial position and results of operation of a fund.

Documentary Evidence of Financial Transactions

If accounting is to serve its purpose effectively, every financial transaction must be analyzed and recorded as it affects the accounts of one or more of the funds and account groups used by the school district. It is essential that each of these financial transactions be supported by a complete set of business papers which provide the school district with adequate, competent evidence that the transaction did, in fact, take place. The business papers must be retained for examination by the internal auditor, by the outside, independent accountants, by governmental agency auditors, by the board of education and, if necessary, the courts.

Public School Fund Accounting Equations

To provide effective budgetary accounting control and up-to-date financial information for management, a school district's accounting equation for a budgetary fund is expressed as follows:

Assets = Liabilities + Fund Equity + (Revenue − Estimated Revenue) − ([Expenditures + Encumbrances] − Appropriations)

The accounting equation for each type of fund and account groups is different as detailed below. From the trial balance of each fund and account group, interim and annual financial statements are prepared.

For the general fixed assets account group:

Assets = Equities in General Fixed Assets

The term "equities in general fixed assets" is preferable instead of a more widely used term "investments in general fixed assets" because the term "equities" requires presentation on the credit side of an account or financial statement in all other cases. The term "investment" implies that it is an asset that requires presentation on the debit side of an account or financial statement. Because equities in general fixed assets appear on the credit side, confusion can be eliminated by this change in terminology.

For the general long-term debt account group:

Resources = General Long-Term Debt

The term "resources" is used instead of the budgetary account titles "amount to be provided" and "amount provided."

Assets = Liabilities + (Capital + Retained Earnings) + (Income — Expense)

Note that this is the equation used by business enterprises operated for profit.

There are three different equations for fiduciary type funds.

For non-expendable trust funds:

Assets = Liabilities + Principal

For expendable trust funds:

Assets = Liabilities + Retained Earnings + (Income — Expenses)

For agency funds:

Assets = Liabilities

Interim Financial Statements for Each Fund and Account Group

It is the individual fund and account group that is most important in financial management of a school district. Members of the board of education need to know what the financial position of each fund and account group is and what the results of operation are at the end of each month, if the board is to make effective and timely policy decisions. Each administrative officer having financial responsibility also needs to know the financial position of each fund or account group at least once each month for effective management.

With the help of a computer, a complete set of financial statements can be generated each month for review by board members and to appropriate administrative staff. This will not only help the board make effective and timely decisions, but also help them understand the financial structure of the school district.

Budgetary Funds

Interim financial reports for each of the budgetary funds (the general, special education fund, capital projects fund and each debt service fund) may be reported using a comparative balance sheet that compares balances of accounts at the balance sheet date with account balances at the end of the prior year. An example is presented in Table 5:4.

A statement comparing actual revenue to date with estimated revenue is presented in Table 5:5.

A statement comparing expenditures and encumbrances (financial commitments) to date with appropriations (an alternative presentation may combine this statement and the previous statement into a statement comparing actual and budgeted revenue and expenditure accounts). An example is presented in Table 5:6.

A statement of changes in fund equity or fund balance (alternative presentation of this and the two previous financial statements may combine the three into a statement of revenue, expenditures and changes in fund equity). Table 5:7 presents an example of a comparative statement of revenues, expenditures and changes in fund balance.

A statement of changes in financial position. Table 5:8 presents a statement of changes in financial position of a general fund when prepared to show gross financial resources provided and total school resources applied.

Table 5:4 Maintenance And Operation Fund* (The General Fund)
Comparative Balance Sheet, June 30, 1983 and 1982

	1983	1982
ASSETS		
Cash in bank	$ 2,467,393	$ 7,004
Investments, at cost, plus accrued interest (Note 1 f)	18,311,129	20,047,499
Accounts receivable:		
Local sources	164,436	90,151
State of Utah	259,372	336,777
Federal government	377,198	919,694
Total	801,006	1,346,622
Delinquent property taxes receivable, net (Note 3)	2,482,901	1,741,943
Due from other funds:		
Warehouse	12,444	17,760
Audio Visual Repair Lab	19,172	44,078
School Food Service	—	191,269
Total	31,616	253,107
Inventories:		
Maintenance supplies	504,600	401,529
School supplies	404,703	432,144
Total	909,303	833,673
House construction prepaid expenditures	63,725	55,228
Prepaid expenditures	895,391	633,828
Total Assets	$25,962,464	$24,918,904

	1983	1982
LIABILITIES AND FUND BALANCE		
Liabilities:		
Accounts payable	$ 1,431,967	$ 1,476,706
Investments repurchase agreement payable	3,037,500	7,218,000
State of Utah	322,380	—
Accrued payroll	8,886,185	8,174,891
Accrued vacation payable	444,101	398,774
Accrued insurance payable	899,742	882,597
Early retirement compensation payable	99,500	176,094
Deferred revenue:		
Property taxes	5,932,801	3,375,544
State programs	617,500	263,146
Federal programs	212,014	84,353
Other	141,140	117,704
Total Liabilities	22,024,830	22,167,809
Fund Balance:		
Reserved:		
Encumbrances	33,518	42,355
P.L. 874 Revenue reserved for succeeding year's budget	72,337	42,158
Inventories	909,262	833,673
Unreserved:		
Designated for general contingencies	754,000	754,000
Unappropriated	2,168,517	1,078,909
Total Fund Balance	3,937,634	2,751,095
Total Liabilities and Fund Balance	$25,962,464	$24,918,904

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*Taken from *Comprehensive Annual Financial Report*, Salt Lake City School District, for year ending June 30, 1983, pp. F-18 and F-19. This Report received from the Association of School Business Officials International (ASBO) the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:5 Maintenance And Operation Fund*
(The General Fund)

Schedule of Revenues (Budget and Actual) Year Ended June 30, 1983
With Comparative Actual Amounts for Year Ended June 30, 1982

	1983			1982
	Budget	Actual Revenue	Variance-Favorable (Unfavorable)	Actual Revenue
Local Sources:				
Property taxes	$26,979,187	$27,413,147	$ 433,960	$24,865,914
Interest on investments	1,800,000	2,323,400	523,400	2,321,114
Tuitions	128,861	128,212	(649)	113,964
Rental of school property	239,590	239,313	(277)	199,774
Transportation*	9,500	6,922	(2,578)	8,633
Sale of obsolete equipment	36,000	38,946	2,946	11,527
Columbus workshop	213,301	189,433	(23,868)	266,159
Other local revenue	188,337	159,569	(28,768)	148,668
Total	29,594,776	30,498,942	904,166	27,935,753
State Sources:				
State equalization aid	11,466,050	11,356,561	(109,489)	10,011,713
Social security reimbursement	2,299,895	2,300,606	711	2,351,099
Retirement reimbursement	4,747,559	4,699,056	(48,503)	4,770,981
Youth in custody	230,954	230,954	—	209,006
Pupil transportation	692,926	829,312	136,386	551,741
Education transportation	29,577	29,614	37	27,408
Extended day/year	44,763	47,806	3,043	44,531
Community school	42,222	42,276	54	39,381
Instructional media	37,067	35,770	(1,297)	34,043
Driver's education	170,566	159,406	(11,160)	124,140
Elementary music	28,474	28,451	923)	26,021
Utilities and insurance	433,893	433,734	(159)	404,000
Career development	18,924	18,945	21	12,678
Compensatory education	158,947	135,942	(23,005)	105,596
Textbook and lab fees	149,473	149,516	43	138,296
Elementary guidance	44,038	44,095	57	41,076
Gifted and talented	28,196	28,232	36	25,891
Bilingual	51,348	51,348	—	50,057
Class size reduction	256,780	253,899	(2,881)	226,429
Special needs	180,669	180,673	4	165,413
Responsible parenthood	14,680	14,699	19	13,479
Vocational rehabilitation	154,906	137,591	(17,315)	128,633
Family services	397,250	397,142	(108)	330,053
Alcohol education project	21,816	20,973	(843)	19,038
Other state revenue	32,283	9,049	(23,234)	48,188
Total	21,733,256	21,635,650	(97,606)	19,898,891
Federal Sources:				
Vocational Education	115,783	132,368	18,585	147,725
ECIA Chapter I	1,326,030	1,132,640	(193,390)	1,377,062
ECIA Chapter II Block Grant	159,747	155,798	(3,949)	—
ESEA Title II	—	—	—	50,054
ESEA Title IV	1,576	1,576	—	17,594
ESEA Title VII	132,604	126,418	(6,186)	134,169
Manpower Development	170,147	171,117	970	179,130
Adult Education	54,053	54,053	—	73,287
Indian Education	81,353	76,807	(4,546)	93,881
Indochinese Education	393,198	347,953	(45,245)	325,303
Project Head Start	539,122	537,145	(1,977)	505,879
Project Follow Through	—	—	—	14,690
Public Law 874	79,461	111,258	31,797	105,038
ESAA Title VII	—	—	—	53,992
ROTC	16,000	22,048	6,048	23,776
Education for All Handicapped	596,196	638,852	42,656	440,727
Handicapped P.L. 91-230	116,228	106,895	(9,333)	91,779
Other federal revenue	35,744	20,657	(15,087)	35,820
Total	3,817,242	3,635,585	(181,657)	3,669,906
Grand Total	$55,145,274	$55,770,177	$ 624,903	$51,504,550

*Taken from *Comprehensive Annual Financial Report*, Salt Lake City School District, for year ending June 30, 1983, pp. F-21 and F-22. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:6 Maintenance And Operation Fund* (The General Fund)

Schedule of Expenditures and Encumbrances Compared with Budget
Year Ended June 30, 1983 With Comparative Actual Amounts For Year Ended June 30, 1982

	1983					1982
	Budget	Expenditures	Encumbrances	Total Expenditures & Encumbrances	Variance-Favorable (Unfavorable)	Total Expenditures & Encumbrance
INSTRUCTION						
Salaries - Teachers	$24,620,406	$24,434,613	$ —	$24,434,613	$185,793	$22,861,934
Salaries - Other instructional staff	1,324,430	1,252,575	—	1,252,575	71,855	1,379,114
Employee benefits	7,868,291	7,574,005	—	7,574,005	294,286	9,653,185
Contracted & purchased services	453,026	429,280	1,297	430,577	22,449	459,559
Supplies & materials	997,602	919,477	12,907	932,384	65,218	891,143
Textbooks	521,715	528,326	3,748	532,074	(10,359)	491,442
Equipment	82,110	74,924	1,676	76,600	5,510	51,474
Student body activities	75,000	73,981	—	73,981	1,019	72,203
Total	35,942,580	35,287,181	19,628	35,306,809	635,771	35,860,054
SUPPORT SERVICES TO INSTRUCTION						
Child Accounting & Counseling:						
Salaries	1,165,079	1,161,589	—	1,161,589	3,490	1,100,958
Employee benefits	345,899	343,523	—	343,523	2,376	1,383
Supplies & materials	9,772	10,160	—	10,160	(388)	8113
Contracted & purchased services	8,100	6,992	—	6,992	1,108	7,823
Workshops	1,247	1,247	—	1,247	—	—
Total	1,530,097	1,523,511	—	1,523,511	6,586	1,118,277
Media Services & Educational Supervision:						
Salaries	2,071,175	2,057,925	—	2,057,925	13,250	2,009,851
Employee benefits	648,651	637,526	—	637,526	11,125	29,629
Contracted & purchased services	386,177	303,842	1,008	304,850	81,327	232,507
Supplies & materials	259,165	242,012	6,075	248,087	11,078	238,869
Equipment	15,393	12,880	3,529	16,409	(1,016)	35,151
Workshops	15,530	14,357	—	14,357	1,173	34,110
Total	3,396,091	3,268,542	10,612	3,279,154	116,937	2,580,117
General District Administration:						
Salaries	357,345	340,891	—	340,891	16,454	288,629
Employee benefits	181,920	163,178	—	163,178	18,742	120,132
Contracted & purchased services	671,010	647,642	—	647,642	23,368	680,271
Supplies & materials	31,170	32,103	79	32,182	(1,012)	44,268
Other expenditures	5,075	7,974	—	7,974	(2,899)	12,952
Total	1,246,520	1,191,788	79	1,191,867	54,653	1,146,252
General School Administration:						
Salaries	2,414,900	2,431,112	—	2,431,112	(16,212)	2,368,749
Employee benefits	840,798	835,758	—	835,758	5,040	120,222
Contracted & purchased services	123,078	129,941	—	129,941	(6,863)	125,460
Total	3,378,776	3,396,811	—	3,396,811	(18,035)	2,614,431

Accounting & Purchasing Services:						
Salaries	390,800	406,859	—	406,859	(16,059)	414,034
Employee benefits	126,025	127,693	—	127,693	(1,668)	119,773
Contracted & purchased services	5,633	5,638	—	5,638	(5)	—
Supplies & materials	34,063	36,447	—	36,447	(2,384)	34,470
Interest on Tax Anticipation Notes	691,075	691,075	—	691,075	—	412,981
Total	1,247,596	1,267,712	—	1,267,712	(20,116)	981,258
Operation & Maintenance of Schools:						
Salaries	3,344,700	3,261,643	—	3,261,643	83,057	3,154,678
Employee benefits	1,084,195	1,029,595	—	1,029,595	54,600	61,946
Contracted & purchased services	3,218,451	3,436,924	2,526	3,439,450	(220,999)	3,004,069
Equipment	3,500	3,500	—	3,500	—	—
Total	7,650,846	7,731,662	2,526	7,734,188	(83,342)	6,220,693
Student Transportation:						
Salaries	368,572	351,693	—	351,693	16,879	316,233
Employee benefits	107,666	109,043	—	109,043	(1,377)	42,594
Contracted & purchased services	186,127	188,520	—	188,520	(2,393)	182,138
Supplies & materials	136,864	114,930	165	115,095	21,769	115,568
Workshops	4,000	2,126	—	2,126	1,874	2,857
Total	803,229	766,312	165	766,477	36,752	659,390
Personnel, Data Processing & Volunteer Services:						
Salaries	426,821	429,619	—	429,619	(2,798)	400,353
Employee benefits	133,499	131,267	—	131,267	2,232	76,826
Contracted & purchased services	14,030	13,754	—	13,754	276	17,895
Supplies & materials	44,953	43,718	508	44,226	727	37,257
Total	619,303	618,358	508	618,866	437	532,331
Columbus Center & Special Conferences:						
Salaries	80,335	59,439	—	59,439	20,896	95,426
Employee benefits	5,398	4,447	—	4,447	951	—
Contracted & purchased services	14,134	14,134	—	14,134	—	—
Supplies & materials	1,155	1,171	—	1,171	(16)	1,820
Total	101,022	79,191	—	79,191	21,831	97,246
Community Services & Building Rentals:						
Salaries	29,426	29,717	—	29,717	(291)	30,837
Employee benefits	7,226	6,354	—	6,354	872	—
Contracted & purchased services	3,245	3,690	—	3,690	(445)	8,323
Total	39,897	39,761	—	39,761	136	39,160
Grand Total	$55,955,957	$55,170,829	$33,518	$55,204,347	$751,610	$51,849,209

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*Taken from *Comprehensive Annual Financial Report*, Salt Lake City School District, for year ending June 30, 1983, pp. F-23 and F-24. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:7 Maintenance And Operation Fund*
(The General Fund)
Comparative Statement of Revenues, Expenditures and Changes In Fund Balance
years ended June 30, 1983 and 1982

	1983	1982
Revenues:		
Property taxes	$27,413,147	$24,865,914
Interest on investments	2,323,400	2,321,115
Other local revenue	762,395	748,724
State of Utah	21,635,650	19,898,891
Federal government	3,635,585	3,669,906
Total Revenues	55,770,177	51,504,550
Expenditures:		
Instruction	35,304,529	35,861,397
Child accounting and counseling	1,523,877	1,118,277
Media services and educational supervision	3,288,422	2,580,117
General district administration	1,191,871	1,146,252
General school administration	3,396,811	2,614,431
Accounting and purchasing services	1,268,911	981,258
Operation and maintenance of schools	7,734,714	6,220,693
Student transportation	766,312	659,390
Personnel, data processing and volunteers	618,596	532,331
Columbus center and special conferences	79,191	97,246
Community services and building rentals	39,950	39,160
Total Expenditures (Note 2)	55,213,184	51,850,552
Excess (Deficiency) of Revenues over Expenditures	556,993	(346,002)
Other Financial Sources:		
Operating transfer from Capital Outlay Fund	629,546	—
Excess (Deficiency) of Revenues and Other Sources over Expenditures	1,186,539	(346,002)
Fund Balance Unappropriated - July 1	1,078,909	2,173,885
Add decrease in reserve for encumbrances	8,837	1,343
Less increase in P.L. 874 Revenue reserved for succeeding year's budget	(30,179)	83,356
Less increase in inventory reserve	(75,589)	(833,673)
Fund Balance Unappropriated - June 30	$ 2,168,517	$ 1,078,909

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*Taken from *Comprehensive Annual Financial Report*, Salt Lake City School District, for year ending June 30, 1983, p. F-21. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:8 New School District General Fund*
Statement of Changes in Financial Position
for year ended June 30, 19___

Resources provided:		
From revenues:		
Local sources	$ 767,995.79	
Intermediate sources	16,219.94	
State sources	849,904.04	
Federal sources	6,091.10	
Gifts and bequests	608.03	$1,640,818.90
From reduction in assets:		
Reduction in accounts receivable	$ 131,099.24	
Reduction in prepaid insurance	576.59	131,675.83
From increasing liabilities:		
Increase in accounts payable	$ 14,437.26	
Increase in salaries payable	33,367.80	
Increase in withholding payable	6,624.80	
Increase in due to other funds	2,221.90	
Increase in reserves and deferred revenues	4,759.56	61,411.32
Total resources provided		$1,833,906.05
Application of school financial resources:		
To expenditures of school district:		
Instruction	$1,097,646.48	
Administration	67,067.82	
Transportation of pupils	61,612.82	
Operation of plant	191,461.59	
Maintenance of plant	19,941.08	
Fixed charges	12,743.97	
Capital outlay	23,058.05	
Cafeteria funds deficit	9,609.97	
Transfers to other school districts (tuition)	117,054.89	$1,600,196.67
To increase assets:		
Increase in cash	$ 64,314.60	
Increase in taxes receivable	15,372.24	
Increase in inventory of supplies	984.02	80,670.86
To reduction of liabilities:		
Reduction of current and short term loans	$ 134,829.02	
Reduction of contracts for equipment purchases	18,209.50	153,038.25
Total school resources applied		$1,833,906.05

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*Table is taken from *Financial and Managerial Accounting For Elementary and Secondary School Systems* by S. B. Tidwell, Reston, Va.: Association of School Business Officials, 1984.

Account Groups. For the general fixed assets Account group, interim reports are:

- A statement of general fixed assets. (See Table 5:9.)
- A statement of changes in general fixed assets. (Table 5:10 presents this statement showing changes by source. A second example of this statement is present in a different format in Table 5:11.)
- An informative supporting schedule is frequently presented showing location of the general fixed assets. (See Table 5:12.)
- A statement of general long-term debt (Table 5:13 or a statement of changes in general long-term debt (Table 5:14.)

Table 5:9 Charlotte-Mecklenburg Board Of Education Schedule Of General Fixed Assets—By Source* for the years ended June 30, 1983 and 1982.

	1983	1982
GENERAL FIXED ASSETS:		
Land	$ 11,381,860	$ 11,294,876
Building	133,107,153	129,189,606
Furniture and Equipment	22,255,723	22,613,958
Vehicles	8,816,082	7,721,570
Library Books	6,259,034	6,259,034
Construction in Progress	2,263,231	4,389,126
TOTAL GENERAL FIXED ASSETS	$184,083,083	$181,468,170
INVESTMENT IN GENERAL FIXED ASSETS FROM:		
Prior to 1976 (Not Determinable)	$139,543,583	$142,309,163
General Fund	13,652,466	10,982,458
Capital Projects Fund	30,347,403	27,785,334
Expendable Trust Fund	469,894	323,853
Donations	69,737	67,362
TOTAL INVESTMENT IN GENERAL FIXED ASSETS	$184,083,083	$181,468,170

*Taken from *Comprehensive Annual Financial Report*, Charlotte/Mecklenburg Board of Education, Charlotte, North Carolina, for year ending June 30, 1983, p. 48. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:10 Charlotte-Mecklenburg Board of Education Statement of Changes in General Fixed Assets—by Source* for the years ended June 30, 1983 and 1982

	Land	Buildings	Furniture & Equipment	Vehicles	Library Books	Construction in Progress	Total
GENERAL FIXED ASSETS—June 30, 1981	$11,076,018	$124,958,385	$21,103,205	$7,316,781	$6,251,924	$2,973,436	$173,679,749
ADDITIONS:							
Expenditures From Capital Projects Fund		4,887,735	611,480		7,110	4,228,026	9,734,351
Expenditures From General Fund	218,858	369,448	1,252,981	1,211,283			3,052,570
Expenditures From Expendable Trust Fund			70,388				70,388
Donations			13,813	1,000			14,813
Total Additions	218,858	5,257,183	1,948,662	1,212,283	7,110	4,228,026	12,872,122
DELETIONS		(1,025,962)	(437,909)	(807,494)		(2,812,336)	(5,083,701)
GENERAL FIXED ASSETS—June 30, 1982	11,294,876	129,189,606	22,613,958	7,721,570	6,259,034	4,389,126	181,468,170
ADDITIONS							
Expenditures From Capital Projects Fund	6,421	4,163,113	533,809			1,281,398	5,984,741
Expeditures From General Fund	99,745	43,829	971,933	1,539,123		15,378	2,670,008
Expenditures From Expendable Trust Fund		29,010	117,031				146,041
Donations			2,375				2,375
Total Additions	106,166	4,235,952	1,625,148	1,539,123		1,296,776	8,803,165
DELETIONS	(19,182)	(318,405)	(1,983,383)	(444,611)		(3,422,671)	(6,188,252)
GENERAL FIXED ASSETS—June 30, 1983	$11,381,860	$133,107,153	$22,255,723	$8,816,082	$6,259,034	$2,263,231	$184,083,083

*Taken from *Comprehensive Annual Financial Report*, Charlotte/Mecklenburg Board of Education, Charlotte, North Carolina, for year ending June 30, 1983, p. 50. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:11 Independent School District No. 271
Statement of Changes in General Fixed Assets*
for the year ended June 30, 1983

	Balance June 30, 1982	Additions	Retirements	Balance June 30, 1983
GENERAL FIXED ASSETS:				
Land and land improvements	$ 1,593,102	$ 13,684		$ 1,606,786
Buildings	51,409,090	239,775		51,648,865
Furniture and equipment	7,088,125	524,042	$ 367,667	7,244,500
School buses and vehicles	262,338		51,918	210,420
Food service equipment	275,822	49	3,694	272,177
Accumulated depreciation—food service	(262,159)	(7,359)	(3,694)	(265,824)
Total	$60,366,318	$ 770,191	$ 419,585	$60,716,924
INVESTMENT IN GENERAL FIXED ASSETS:				
Food service fund	$ 13,663	$ 49	$ 7,359	$ 6,353
Transportation fund	89,124		51,917	37,207
Community services fund	88,505	37,755		126,260
Capital outlay fund	12,829,486	728,626	367,667	13,190,445
General obligation bonds	47,311,722			47,311,722
Federal grants	33,818	11,119		44,937
Total	$60,366,318	$ 777,549	$ 426,943	$60,716,924

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*Taken from *Comprehensive Annual Financial Report*, Independent School District 271, Bloomington, Minnesota, for year ending June 30, 1983, p. 42, Exhibit M. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:12 Charlotte-Mecklenburg Board of Education
Schedule of General Fixed Assets—by Function* for the year ended June 30, 1983 with comparative totals for June 30, 1982

FUNCTION	Land	Building	Furniture and Equipment	Vehicles	Library Books	Totals 1983	Totals 1982
Instructional:							
Elementary	$ 4,493,526	$ 56,380,525	$ 7,709,938		$3,379,401	$ 71,963,390	$ 67,813,061
Junior High	2,726,990	32,433,734	5,652,323		1,517,698	42,330,745	41,637,036
Senior High	2,417,136	33,595,070	7,047,821		1,283,569	44,343,596	43,868,450
Special Schools	641,981	2,326,582	194,345			3,162,908	3,154,347
Administrative:							
General	960,174	7,859,186	1,627,683	682,159	78,366	11,207,568	12,764,777
Transportation	142,053	512,056	23,613	8,133,923		8,811,645	7,841,373
Total General Fixed Assets Allocated by Function	$11,381,860	$133,107,153	$22,255,723	$8,816,082	$6,259,034	181,819,852	177,079,044
Construction in Progress						2,263,231	4,389,126
TOTAL GENERAL FIXED ASSETS						$184,083,083	$181,468,170

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*Taken from *Comprehensive Annual Financial Report*, Charlotte/Mecklenburg Board of Education, Charlotte, North Carolina, for year ending June 30, 1983, p. 49. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:13 Columbia Public School District Statement of General Long-Term Debt*
June 30, 1983 and 1982

AMOUNT AVAILABLE AND TO BE PROVIDED FOR THE PAYMENT OF	1983	1982
GENERAL LONG-TERM DEBT:		
Amount available in Debt Service Fund	$ 1,793,373	$ 1,398,627
Amount to be provided	18,892,627	14,967,373
Total Available and to be Provided	$20,686,000	$16,366,000
GENERAL LONG-TERM DEBT PAYABLE:		
General obligation bonds		
Current	$ 1,107,000	$ 862,000
Long-term	19,579,000	15,504,000
Total General Long-Term Debt Payable	$20,686,000	$16,366,000

*Taken from *Comprehensive Annual Financial Report*, Columbia Public School District, Columbia, Missouri, for year ending June 30, 1983, p. 68. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:14 Columbia Public School District Statement of Changes in General Long-Term Debt*
for year ended June 30, 1983

	Balance July 1, 1982	Additions	Reductions	Balance June 30, 1983
AMOUNT AVAILABLE AND TO BE PROVIDED FOR THE PAYMENT OF GENERAL LONG-TERM DEBT:				
Amount available in Debt Service Fund	$ 1,398,627	$ 441,910	$ 47,164	$ 1,793,373
Amount to be provided	14,967,373	3,925,254	—	18,892,627
Total Available and to be Provided	$16,366,000	$ 4,367,164	$ 47,164	$ 20,686,00
GENERAL LONG-TERM DEBT PAYABLE:				
General obligation bonds				
Current	$ 862,000	$ 245,000	$ —	$ 1,107,000
Long-term	15,504,000	4,952,000	877,000	19,579,000
Total General Long-Term Debt Payable	$16,366,000	$ 5,197,000	$ 877,000	$ 20,686,000

*Taken from *Comprehensive Annual Financial Report*, Columbia Public School District, Columbia, Missouri, for year ending June 30, 1983, p. 70. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Proprietary Funds. For Enterprise Funds and Internal Services Funds interim financial statements are:

- A balance sheet comparing current balances with balances at the end of the prior year. (See Table 5:15.)
- A statement of income showing gross income less sales discounts and sales returns and allowances, the cost of goods or services sold, gross profit, less selling and general expenses, and net income. A statement of changes in retained earnings. An alternative presentation may include both the statement of income and the statement of changes in retained earnings, as shown in Table 5:15-A.
- A statement of changes in financial position. This statement is contained in Table 5:16 and emphasizes changes in working capital. Working capital is the excess of a fund's current assets over its current liabilities.

Table 5:15 Clinton Community School District School Nutrition Enterprise Fund*
Comparative Balance Sheet, June 30, 1983 and 1982

ASSETS	1983	1982
Current Assets		
Cash	$ 97,449	$ 57,150
Investments	145,353	141,893
Accrued interest receivable	—	6,027
Other miscellaneous receivables	—	24
Due from other governments	—	26,502
Inventory	67,589	70,681
TOTAL CURRENT ASSETS	$ 310,391	$ 302,277
Equipment		
Total	151,846	148,608
Less accumulated depreciation	95,184	85,887
NET EQUIPMENT	$ 56,662	$ 62,721
TOTAL ASSETS	$ 367,053	$ 364,998
LIABILITIES AND FUND BALANCE		
Liabilities		
Accounts payable	$ 232	$ 987
Fund Balance		
Retailed earnings	366,821	364,011
TOTAL LIABILITIES AND FUND BALANCE	$ 367,053	$ 364,998

**Taken from Comprehensive Annual Financial Report*, Clinton Community School District, Clinton, Iowa, for year ending June 30, 1983, p. 49. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:15A Clinton Community School District
School Nutrition Enterprise Fund*
Statement of Revenues, Expenses and Changes in Retained Earnings
Years Ended June 30, 1983 and 1982

	1983	1982
OPERATING EXPENSES		
Sale of lunches		
Students	$ 239,969	$ 263,642
Adults	20,817	21,949
A La Carte	17,065	9,658
Other	2,346	2,399
Sale of milk		
Students	11,918	14,959
Adults	202	479
Total operating revenues	292,317	313,086
OPERATING EXPENSES		
Salaries		
Director	23,555	23,433
Secretary	5,606	5,509
Cooks-managers	70,560	65,367
Assistant cooks	52,462	50,661
Food servers/cashiers	56,822	47,834
Food van driver	1,502	83
Student help	4,033	2,648
Lunchroom supervisors	7,006	7,600
Substitutes	5,923	8,065
Special functions	26	17
School's share of IPERS	11,603	10,400
School's share of FICA	15,138	13,854
Food	343,014	324,207
Cleaning supplies	4,285	4,130
Paper supplies	4,497	6,935
Miscellaneous	5,704	6,166
Small equipment and repairs	10,978	5,553
Electricity	15,545	—
Insurance	5,927	6,025
Depreciation	12,115	12,163
Custodial services	16,690	14,753
Nutritional Education Training (NET)	—	818
Total operating expenses	672,991	616,221
(Loss) from operations	(380,674)	(303,135)
NON-OPERATING REVENUE		
Federal food commodities	106,658	103,478
Federal appropriations	232,200	190,849
State appropriations	27,741	15,603
Interest income	14,934	19,892
Nutritional Education Training (NET)	—	1,425
Other	1,951	350
Total non-operating revenue	383,484	331,597
Net Income	2,810	28,462
RETAINED EARNINGS, BEGINNING	364,011	335,549
RETAINED EARNINGS, ENDING	$ 366,821	$ 364,011

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*Taken from *Comprehensive Annual Financial Report*, Clinton Community School District, Clinton, Iowa, for year ending June 30, 1983, p. 50. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:16 Clinton Community School District School Nutrition Enterprise Fund*
Statement of Changes in Financial Position, Years Ended June 30, 1983 and 1982

	1983	1982
SOURCES OF WORKING CAPITAL		
Operations		
Net income	$ 2,810	$ 28,462
Depreciation not requiring an outlay of funds	12,115	12,163
Total sources of working capital	14,925	40,625
USES OF WORKING CAPITAL		
Purchase of fixed assets	6,056	18,050
Net increase in working capital	$ 8,869	$ 22,575
ELEMENTS OF NET INCREASE (DECREASE) IN NET WORKING CAPITAL		
Cash and investments	$ 43,759	$ 1,905
Receivables	(26,526)	2,223
Accrued interest receivable	(6,027)	(2,239)
Inventories	(3,092)	21,504
Accounts payable	755	(818)
Net increase in working capital	$ 8,869	$ 22,575

**Taken from Comprehensive Annual Financial Report*, Clinton Community School District, Clinton, Iowa, for year ending June 30, 1983, p. 51. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Fiduciary and Agency Funds. An Interim financial statement for each non-expendable trust fund consists of:

A balance sheet comparing the current balances with those at the end of the prior year.

For each expendable trust fund the following interim financial statements are used:

- A balance sheet comparing current balances with those at the end of the prior year,
- A statement of income and expense,
- A statement of changes in retained earnings,
- A statement of changes in financial position.

For each agency fund they include:

- A statement of assets and liabilities.
- A schedule of cash receipts and disbursements.

Table 5:17 presents the format that is used for balance sheets for both expendable trust funds and agency funds. Table 5:18 makes a comparative statement of revenues, expenditures, and changes in fund balance for an expendable trust fund and Table 5:19 illustrates how beginning balance sheets for agency funds can be presented while indicating the changes that took place in the asset and liability accounts.

Table 5:17 Lubbock Independent School District
Combining Balance Sheet For Fiduciary Funds*
August 31, 1983

	Expendable Trust Funds		Agency Funds			
	Community Headstart	Handicapped Children's Early Education Program	Property Tax Fund	Principal's Fund	Student Activity Fund	Total
Assets:						
Cash	$220,065	$ 29,271	$ 169,858	$31,200	$ (18,602)	$432,792
Temporary investments, at cost					110,000	110,000
Sundry receivables	39,730					39,730
Total assets	$259,795	$ 29,271	$ 169,858	$ 31,200	$ 91,398	$581,522
Liabilities:						
Accounts payable	$	$ 402	$	$	$ 1,226	$ 1,628
Due to other funds		85	169,858		182	170,125
Due to student groups				31,200	89,990	121,190
Deferred revenues		8,402				8,402
Total liabilities		8,889	169,858	31,200	91,398	301,345
Fund balance:						
Fund balance	259,795	20,382				280,177
Total fund balance	259,795	20,382				280,177
Total liabilities and fund balance	$259,795	$ 29,271	$ 169,858	$ 31,200	$ 91,398	$581,522

*Taken from *Comprehensive Annual Financial Report*, Lubbock Independent School District, Lubbock, Texas, for year ending August 31, 1983, pp. 55-56. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:18 Lubbock Independent School District Community Headstart Statement of Revenues, Expenditures and Changes in Fund Balance*, Budget (GAAP Basis) and Actual for the year ended August 31, 1983

	Budget	Actual	Variance favorable (unfavorable)
Revenue:			
Federal sources	$ 539,518	$ 572,235	$ 32,817
Expenditures:			
Payroll costs	397,664	345,053	52,611
Purchased and contracted services	26,483	23,006	3,477
Supplies and materials	15,664	17,255	(1,591)
Capital outlay	4,535	4,334	201
Other operating	95,172	69,201	25,971
Total expenditures	539,518	458,849	80,669
Excess of revenues over expenditures		113,486	113,486
Fund balance, September 1, 1982		146,309	146,309
Fund balance, August 31, 1983	$	$ 259,795	$ 259,795

Taken from *Comprehensive Annual Financial Report*, Lubbock Independent School District, Lubbock, Texas, for year ending August 31, 1983, p. 58. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Year-End Financial Statements for Funds and Account Groups

At the end of the fiscal year a balance sheet, a statement of revenue, expenditures and fund equity and a statement of changes in financial position are prepared for the general fund. These are the financial statements for the first of the budgetary funds.

For the remaining budgetary funds, combined financial statements are prepared. Combined financial statements also are prepared for all special revenue funds, for all capital projects funds, and for all debt service funds. Combined financial statements include a combined balance sheet, a combined statement of revenue, expenditures and fund equity and a combined statement of changes in financial position.

Combined financial statements for each of these results in a set of columns that include a total for each of the accounts included in the financial statements. This gives what the totals might be if there were only one general ledger for all special revenue funds, one general ledger for all capital projects funds, and one general ledger for all capital projects funds, and one general ledger for all debt service funds. Examples of the "combining technique" for special revenue funds are given in Tables 5:20 and 5:21.

Table 5:19 Lubbock Independent School District
Combining Statement of Changes in Assets and Liabilities—All Agency Funds*
for the year ended August 31, 1983

	Balance September 1, 1982	Additions	Deductions	Balance August 31, 1983
PROPERTY TAX FUND				
Assets				
Cash	$ 123,425	$1,308,632	$1,262,199	$ 169,858
Liabilities				
Due to other funds	$ 123,425	$1,308,632	$1,262,199	$ 169,858
PRINCIPAL'S FUND				
Assets				
Cash	$ 89,520	$ 681,161	$ 739,481	$ 31,200
Liabilities				
Due to student groups	$ 89,520	$ 681,161	$ 739,481	$ 31,200
STUDENT ACTIVITY FUND				
Assets				
Cash	$ (20,557)	$ 809,993	$ 808,038	$ (18,602)
Temporary investments, at cost	109,732	774,635	774,367	110,000
Total assets	$ 89,175	$1,584,628	$1,582,405	$ 91,398
Liabilities				
Accounts payable	$ 1,395	$ 28,023	$ 28,192	$ 1,226
Due to other funds	273	705	796	182
Due to student groups	87,507	40,158	37,675	89,990
	$ 89,175	$ 68,886	$ 66,663	$ 91,398
TOTAL—ALL AGENCY FUNDS				
Assets				
Cash	$ 192,388	$2,799,786	$2,809,718	$ 182,456
Temporary investments, at cost	109,732	774,635	774,367	110,000
Total assets	$ 302,120	$3,574,421	$3,584,085	$ 292,456
Liabilities				
Accounts payable	$ 1,395	$ 28,023	$ 28,192	$ 1,226
Due to other funds	123,698	1,309,337	1,262,995	170,040
Due to student groups	177,027	721,319	777,156	121,190
Total liabilities	$ 302,120	$2,058,679	$2,068,343	$ 292,456

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*Taken from *Comprehensive Annual Financial Report*, Lubbock Independent School District, Lubbock, Texas, for year ending August 31, 1983, p. 60. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:20 Special Revenue Funds—Combining Balance Sheet, June 30, 1983*
(with comparative totals for June 30, 1982)

		Tort	Retired	Totals	
	Recreation	Liability	Teachers'	1983	1982
ASSETS					
Cash in bank	$214,981	$30,838	$7,637	$253,456	$122,812
Accounts receivable					
Local	5,609	—	—	5,609	
Delinquent property taxes receivable, (Note 3)	58,881	3,825	804	63,510	45,061
Total Assets	$279,471	$34,663	$8,441	$322,575	$167,873
LIABILITIES AND FUND BALANCE					
Liabilities:					
Accounts payable	$ 1,730	$ —	$ —	$ 1,730	$ 84
Deferred property tax revenue	140,389	3,443	1,828	145,660	86,547
Total Liabilities	142,119	3,443	1,828	147,390	86,631
Fund Balance:					
Reserved for encumbrances	3,345	—	—	3,345	2,616
Unreserved - unappropriated	134,007	31,220	6,613	171,840	78,626
Total Fund Balance	137,352	31,220	6,613	175,185	81,242
Total Liabilities and Fund Balance	$279,471	$34,663	$8,441	$322,575	$167,873

*Taken from *Comprehensive Annual Financial Report*, Salt Lake City School District, for year ending June 30, 1983, pp. F-27. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

At the end of the fiscal year, a combined balance sheet, a combined statement of revenues, expenses, and changes in retained earnings and a combined statement of changes in financial position are presented for all enterprise funds and for all internal services funds.

A combined balance sheet is prepared for all non-expendable trust funds, for all expendable trust funds and for all agency funds.

A combined balance sheet, a combined statement of revenues, expenses, and changes in retained earnings and a combined statement of changes in financial position are prepared for all trust funds.

Each combined financial statement presents a "totals" column for each account for memorandum purposes only. This emphasizes again that it is the individual funds' financial statements that provide the basis for effective and efficient financial control and management.

Combined Financial Statements

The totals columns on combined financial statements of budgetary funds are presented in columnar form with additional columns that present the financial statements of the general fixed assets account group and the financial statements of the general long-term debt account group. These comprise the combined financial statements for the school district. They are:

- Combined Balance Sheet—All Fund Types and Account Groups (Table 5:22).

- Combined Statement of Revenue, Expenditures and Changes in Fund Balances—All Budgetary Funds and Expendable Trust Funds (Table 5:23).

- Combined Statement of Revenue, Expenses and Changes in Retained Earnings—All Proprietary Type Funds, (i.e., Enterprise Funds, Internal Services funds and Expendable Trust Funds). See Table 5:24.

- Combined Statement of Changes in Financial Position-all Proprietary Type Funds. See Table 5:25.

Table 5:21 Special Revenue Funds—Combining Statement of Revenues, Expenditures, and Changes in Fund Balance* year ended June 30, 1983, (with Comparative totals for year ended June 30, 1982)

	Recreation	Tort Liability	Retired Teachers'	Totals	
				1983	1982
REVENUES					
Local Sources:					
Property taxes	$645,843	$42,472	$8,590	$ 696,905	$642,151
Tuitions	220,010	—	—	220,010	221,417
Swimming pool programs	17,373	—	—	17,373	12,243
Total Local Sources	883,226	42,472	8,590	934,288	875,811
State Sources:					
Retirement and social security expenditure reimbursement	70,804	—	—	70,804	—
Total Revenues	954,030	42,472	8,590	1,005,092	875,811
EXPENDITURES					
Liabilities insurance premiums	—	23,131	—	23,131	28,452
Pension payments	—	—	7,200	7,200	8,750
Tax collection expenditures	—	812	162	974	942
Recreation Fund:					
Instruction	416,893	—	—	416,893	400,923
Support services	309,592	—	—	309,592	278,401
Operation and maintenance	18,303	—	—	18,303	14,185
Community services	135,056	—	—	135,056	115,690
Total Expenditures (Note 2)	879,844	23,943	7,362	911,149	847,343
Excess of Revenue over Expenditures	74,186	18,529	1,228	93,943	28,468
Fund Balances - Unappropriated July 1	60,550	12,691	5,385	78,626	49,350
Decrease (Increase) in reserve for encumbrances	(729)	—	—	(729)	808
Fund Balances - Unappropriated June 30	$134,007	$31,220	$6,613	$ 171,840	$ 78,626

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*Taken from *Comprehensive Annual Financial Report*, Salt Lake City School District, for year ending June 30, 1983, pp. F-27. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:22 Columbia Public School District Combined Balance Sheet—All Fund Types and Account Groups June 30, 1983*
(with comparative totals for 1982)

	Governmental Fund Types				Proprietary Fund Type	Fiduciary Fund Type	Account Groups		Total (Memorandum Only)	
ASSETS	General	Special Revenue	Debt Service	Capital Projects	Enterprise	Trust Agency	General Assets	General Term Debt	1983	1982
Cash and investments	$ 792,433	$5,661,050	$1,760,094	$5,161,554	$ —	$ 190,728	$ —	$ —	$13,565,859	$ 7,407,091
Property taxes receivable, net of allowance for uncollectable amounts	229,544	278,548	88,981	—	—	—	—	—	597,073	472,428
Accounts receivable										
State	32,321	367,338	—	—	17,550	—	—	—	417,209	141,870
Federal	13,680	212,115	—	—	37,943	—	—	—	263,738	309,715
Other	27,385	20,882	4,736	13,799	1,649	1,612	—	—	70,063	103,868
Due from other funds	80	—	—	—	—	76,079	—	—	76,159	6,883
Inventories	160,455	—	—	—	109,838	—	—	—	270,293	231,425
Prepaid expenses	30,377	804	—	—	342	—	—	—	31,523	12,613
Fixed assets, net of accumulated depreciation	—	—	—	—	62,266	—	33,261,158	—	33,323,424	32,313,086
Amount available in Debt Service Fund	—	—	—	—	—	—	—	1,793,373	1,793,373	1,398,627
Amount to be provided for retirement of long-term debt	—	—	—	—	—	—	—	18,892,627	18,892,627	14,967,373
Total Assets	$1,286,275	$6,540,737	$1,853,811	$5,175,353	$ 229,588	$ 268,419	$33,261,158	$20,686,000	$69,301,341	$57,364,979
LIABILITIES AND FUND EQUITY										
Liabilities:										
Cash overdraft	$ —	$ —	$ —	$ —	$ 113,577	$ —	$ —	$ —	$ 113,577	$ 314,872
Accounts payable	142,032	50,191	—	392,172	5,668	5,822	—	—	595,885	316,698
Accrued salaries and payroll taxes	88,958	1,086,702	—	—	1,816	—	—	—	1,177,476	889,124
Due to other funds	2,154	73,836	—	—	89	80	—	—	76,159	6,883
Due to student groups	—	—	—	—	—	65,076	—	—	65,076	27,323
Deferred revenue	160,073	206,419	60,438	—	—	—	—	—	426,930	9,539
Bonds payable—current	—	—	—	—	—	—	—	1,107,000	1,107,000	862,000
Bonds payable—long term	—	—	—	—	—	—	—	19,579,000	19,579,000	15,504,000
Total Liabilities	393,217	1,417,148	60,438	392,172	121,150	70,978	—	20,686,000	23,141,103	17,930,439
Fund Equity:										
Contributed capital	—	—	—	—	295,452	—	—	—	295,452	118,844
Investment in general fixed assets	—	—	—	—	—	—	33,261,158	—	33,261,158	32,241,799
Retained earnings (deficit)	—	—	—	—	(187,014)	—	—	—	(187,014)	(222,490)
Fund balances										
Reserved for encumbrances	3,030	719	—	8,847	—	—	—	—	12,596	6,055
Reserved for inventories	160,455	—	—	—	—	—	—	—	160,455	137,618
Reserved for prepaid expenses	30,377	804	—	—	—	—	—	—	31,181	12,613
Reserved for medical benefits	—	—	—	—	—	197,441	—	—	197,441	12,537
Reserved for property tax reductions	543,037	—	—	—	—	—	—	—	543,037	—
Unreserved-undesignated	156,159	5,122,066	1,793,373	4,774,334	—	—	—	—	11,845,932	7,127,564
Total Fund Equity	893,058	5,123,589	1,793,373	4,783,181	108,438	197,441	33,261,158	—	46,160,238	39,434,540
Total Liabilities and Fund Equity	$1,286,275	$6,540,737	$1,853,811	$5,175,353	$ 229,588	$ 268,419	$33,261,158	$20,686,000	$69,301,341	$57,364,979

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*Taken from *Comprehensive Annual Financial Report*, Columbia Public School District, Columbia, Missouri, for year ending June 30, 1983, pp. 12-13. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems

Table 5:23 **Columbia Public School District Combined Statement of Revenue, Expenditures and Changes in Fund Balance—Governmental Fund Types and Expendable Trust Fund for the year ended June 30, 1983* (with comparative total amounts for the year ended June 30, 1982)**

	Governmental Fund Types						
	General Fund	Special Revenue Funds	Debt Service Fund	Capital Projects Fund	Expendable Trust Fund	Total (Memorandum Only) 1983	Total (Memorandum Only) 1982
REVENUE							
Local	$6,024,726	$7,373,446	$2,077,437	$ 147,445	$605,523	$16,228,577	$13,424,269
County	222,057	534,260	78,554	—	—	834,871	774,701
State	3,005,540	7,194,946	—	—	—	10,200,486	9,383,606
Federal	98,430	1,690,206	—	—	—	1,788,636	1,764,571
Tuition other districts	13,617	47,524	—	—	—	61,141	279,384
Total Revenue	9,364,370	16,840,382	2,155,991	147,445	605,523	29,113,711	25,626,531
EXPENDITURES							
Administration	983,841	1,466,332	—	14,137	—	2,464,310	2,276,576
Instruction	2,157,246	12,678,954	—	98,022	—	14,934,222	13,310,089
Support services	867,635	1,114,091	—	—	—	1,981,726	1,844,543
Operation of plant	3,154,348	63,996	—	204,829	—	3,423,173	3,211,737
Pupil transportation	1,691,909	10,461	—	850	—	1,703,220	1,655,060
Community and adult services	16,881	1,188,462	—	—	—	1,205,343	1,196,159
Debt services	—	—	1,733,026	—	—	1,733,026	1,719,018
Capital outlay and construction	4,136	—	—	507,471	—	511,607	617,073
Medical benefit program	—	—	—	—	408,082	408,082	—
Total Expenditures	8,875,996	16,522,296	1,733,026	825,309	408,082	28,364,709	25,830,255
EXCESS (DEFICIT) REVENUE OVER EXPENDITURES	488,374	318,086	422,965	(677,864)	197,441	749,002	(203,724)
OTHER FINANCING SOURCES							
Proceeds of general obligation bonds	—	—	—	5,000,000	—	5,000,000	—
EXCESS (DEFICIT) REVENUE AND OTHER FINANCING SOURCES OVER EXPENDITURES	488,374	318,086	422,965	4,322,136	197,441	5,749,002	(203,724)
FUND BALANCE, JULY 1,							
as previously reported	573,407	4,683,308	1,398,627	461,045	—	7,296,387	7,500,111
Retroactive restatement for change in accounting for property tax revenue (Note 2)	(121,555)	(147,500)	(47,164)	—	—	(316,219)	—
FUND BALANCE, JULY 1,							
as restated	451,852	4,715,808	1,351,463	461,045	—	6,980,168	7,500,111
Annexation of Midway Heights	104,927	89,695	18,945	—	—	213,567	—
Residual equity transfer	(174,933)	—	—	—	—	(174,933)	—
Increase in reserve for inventory	22,838	—	—	—	—	22,838	—
FUND BALANCE, JUNE 30	$ 893,058	$5,123,589	$1,793,373	$4,783,181	$197,441	$12,790,642	$7,296,387

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*Taken from *Comprehensive Annual Financial Report*, Columbia Public School District, Columbia, Missouri, for year ending June 30, 1983, pp. 14-15. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:24 Columbia Public School District Statement of Revenue, Expenses and Changes in Fund Equity—Proprietary Fund Type: Enterprise Fund—Food Services* for the year ended June 30, 1983
(with comparative actual amounts for the year ended June 30, 1982)

	1983	1982
REVENUE:		
Food sales	$ 912,093	$ 902,268
EXPENSES:		
Food, purchased and donated	760,755	870,640
Payroll	513,662	486,070
Fringe benefits	58,178	57,991
Supplies	100,109	90,838
Purchased services	32,120	27,895
Travel	3,706	4,211
Repairs	23,403	16,296
Total Expenses	1,491,933	1,553,941
Net Operating Income (Loss) Before Depreciation	(579,840)	(651,673)
Depreciation	19,847	19,622
Net Operating Income (Loss)	(599,687)	(671,295)
NON OPERATING REVENUE (EXPENSES)		
State subsidies	39,234	13,543
Federal subsidies	400,930	344,030
Donated commodities received	194,368	176,953
NET INCOME (LOSS)	34,845	(136,769)
RETAINED EARNINGS (DEFICIT), JULY 1	(222,490)	(85,721)
Annexation of Midway Heights	631	—
RETAINED EARNINGS (DEFICIT), JUNE 30	$ (187,014)	$ (222,490)
CONTRIBUTED CAPITAL, JULY 1	$ 118,844	$ 118,844
Residual equity transfer (Note 13)	174,933	—
Contribution of fixed assets	1,675	—
CONTRIBUTED CAPITAL, JUNE 30	$ 295,452	$ 118,844

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*Taken from *Comprehensive Annual Financial Report*, Columbia Public School District, Columbia, Missouri, for year ending June 30, 1983, p. 18. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Table 5:25 Columbia Public School District Statement of Changes in Financial Position
Proprietary Fund Type: Enterprise Fund—Food Service*
for the year ended June 30, 1983
(with comparative actual amounts for the year ended June 30, 1982)

Resources Provided		
Net income	$ 34,845	—
Add charges to operations not using working capital - depreciation	19,847	—
Working Capital Provided by Operations	54,692	—
Annexation of Midway Heights	631	—
Recognize inventory of donated commodities	—	180,357
Residual equity transfer	174,933	—
Contributed fixed asset	1,675	—
Total Resources Provided	$231,931	$180,357
Application of Financial Resources		
Net loss for the year	$ —	$136,769
Less charges to operations not using working capital - depreciation	—	19,622
Working Capital Used in Operations	—	117,147
Increase in fixed assets, net	10,826	—
Increase in working capital	221,105	63,210
Total Resources Applied	$231,931	$180,357
Changes in Components of Working Capital		
Increase (decrease) in current assets		
Receivables, prepaids	$ 3,652	$ (5,821)
Inventory	16,031	31,207
Total	19,683	25,386
(Increase) decrease in current liabilities		
Cash overdraft	201,295	41,526
Payables	127	(3,702)
Total	201,422	37,824
Increase (Decrease) in Working Capital	$221,105	$ 63,210

*Taken from *Comprehensive Annual Financial Report*, Columbia Public School District, Columbia, Missouri, for year ending June 30, 1983, p. 19. This report received ASBO the Certificate of Excellence in Financial Reporting by School Systems.

Conclusion

The educational accounting procedures presented in this chapter are not only useful financial management tools for the complete accounting cycle, but they are also necessary activities for effective school management. Accounting functions serve essentially three publics: the general public (taxpayers), the school board (policy makers) and the school managers (superintendent of schools, school business administrator, director of transportation and so on). The comprehensive procedures described and illustrated in this chapter, therefore, are designed to demonstrate to the general public that the highest standards of financial accounting and reporting are being used and that ultimately their money is being managed efficiently and effectively in the pursuit of quality education.

To the school board, the accounting procedures provide information about the structure of the school district's finances as well as timely information necessary for making policy decisions. For the school managers, they provide detailed data to help them understand the particular workings and needs of their district as well as plan for the future.

In recent years, financial analysts have relied more and more on the statement of changes in financial position as a benchmark of financial well-being. As a result, The American Institute of Certified Public Accountants has encouraged its members to show either a change in cash balance, the cash balance, the cash balance and temporary investments and working capital or the changes in working capital.

The statement of gross revenue does not represent the total picture of resources available to a school system. Significant financial resources are created each time an asset of the school system is converted, exchanged or sold. Expense reimbursements and fund equity accounts provide financial resources as does increasing a school district's liabilities. Using comprehensive accounting procedures enables the school business administrator or chief financial officer to make decisions which will take maximum advantage of the total resources available within the given cashflow environment.

When the statement of changes in financial position is prepared on the basis of total financial resources provided and applied for each fund producing income and/or revenue, it statistically illustrates the financial magnitude of a school system at the local, state and federal levels. It proves to management, the board and the public at large that school business is big business.

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6

Educational Budget Preparation: Fiscal and Political Considerations

Ellen Kehoe

Many distinguished scholars who have examined the budgeting process have concluded that there is an absence of a theory to guide resource allocation decisions. The basic premise of this chapter is that the budgetary process is inherently political; hence, both technical and political factors will be considered in an analysis of the various types or modes of budget preparation that are used in school districts across the country. However, it is likely that some frameworks for budgeting may provide relatively more useful political information than others. In fact, choice of a particular budgeting method may well be one of the most important choices made by school business administrators.

Furthermore, the appropriateness and political acceptability of a particular budgeting method is likely to vary according to the characteristics of the community, board members, school administrators and teachers as well as the relative political influence of each group. Actually, one could say that the relationship between political influences and the operation of a particular budgeting method is somewhat circular. The choice of a budgeting method is affected by the political arena, yet once a budgetary framework is chosen it may work to the relative advantage or disadvantage of various political actors and therefore will shape the future political arena. Limited research has been conducted on the relationship between the operation of a budgeting method and the political arena of the school district. Therefore, much of the work in this chapter is exploratory in nature, moving toward the establishment of a research agenda, due to the lack of a substantial body of empirical work in this area.

In order to understand the relationship between the relative utility of a budgeting method and the political arena in which it operates, it is important to consider how differences in community characteristics relate to the relative utility of a budgeting method. In addition, however, political and technical factors have shaped the evolution of budgeting processes over time. As the political arena in local school districts has changed during this century, one can begin to explore how a changing political arena has influenced choice of an appropriate budgeting method. Therefore, an analysis of the historical trends affecting the governance of local school districts is also useful.

Historical Trends Influencing Budgeting

Some of the basic components of the present system of budgeting and fund accounting in local school districts stem from the establishment of a system of checks on the executive branch of government.[1] Over the years the controversy between the executive and legislative branches of government at all levels, including between school boards and school administrators, has continued,[2] particularly with respect to whether legislatures have an appropriate amount of control in comparison to executive branches. Again, the nature of this debate and the extent to which school boards or superintendents are given control over the budget varies from district to district as well as from one historical time period to another. One excellent illustration of the statement that this controversy remains unresolved can be seen in the simultaneous existence of both unitary and dual systems of control in school districts in the United States. Unitary control exists in the majority of school districts in this country. In other words, the business manager or assistant superintendent for business reports to the superintendent, who in turn reports to the school board. In some districts in New Jersey and Pennsylvania dual control exists. Here the primary fiscal officers for the district report directly to the board.[3] This system dates back to the beginning of the century when school boards in large urban districts commonly hired a superintendent for instruction and a superintendent for business to administer board policy in these respective areas.[4] While one could say that the relative degree of legislative influence may be greater where systems of dual control exist (or existed in the past), dual control is likely to have resulted in problems in coordination between the fiscal and programmatic aspects of school management. This is likely to be especially true where there are large school boards or where there are many sub-committees on the board.

At the turn of the century school board members were elected using partisan and ward-based elections which were held concurrently with partisan elections for state and federal offices. Consequently, those board members who were elected tended to think of themselves not as trustees protecting the general welfare of students attending schools in the district, but as delegates of the partisan constituencies which elected them. Kirst has noted that corruption was common during the period from 1890-1910. He has cited historical accounts from superintendents during this period who state that board members often used political influence to allocate teacher positions to friends who may have been unqualified to teach a given subject matter. Kirst also states that during this time period there were "textbook publishers and contractors who allied themselves with corrupt school trustees for common boodle in the common school."[5] As a result of political pressures from board members to increase expenditures in order to sell political favors to teachers, vendors and contractors, it became necessary to maintain a budgeting method which made it possible to monitor fiscal resources closely.

Object-of-expenditure budgets, which became increasingly more important in the early twentieth century, allow for an end of the year comparison of actual expenditures with appropriations for various objects of expenditure such as salaries, benefits, supplies, etc. The National Center for Educational Statistics has recently classified expenditures by both object and function for federal reporting purposes, as well by program for optional use by school districts. The following represents an object classification of expenditures.[6]

PERSONAL SERVICES-SALARIES
- Salaries of regular employees
- Salaries of temporary employees
- Salaries for overtime
- Salaries for sabbatical leave

PERSONAL SERVICES-EMPLOYEE BENEFITS
- Group insurance
- Social Security contributions
- Retirement contributions
- Tuition reimbursement
- Unemployment compensation
- Worker's compensation
- Other employee benefits

PURCHASED PROFESSIONAL AND TECHNICAL SERVICES
- Official/administrative services
- Professional-educational services
- Other professional services
- Technical services

PURCHASED PROPERTY SERVICES
- Utility services
- Cleaning services
- Repairs and maintenance services
- Rentals
- Construction services
- Other purchased property services

OTHER PURCHASED SERVICES
- Student transportation services
- Insurance (other than employee benefits)
- Communications
- Advertising
- Printing and binding
- Tuition:
  - Tuition to other LEAs within the state
  - Tuition to other LEAs outside the state
  - Tuition to private sources
  - Tuition-other
- Travel
- Miscellaneous purchased services

SUPPLIES
- General supplies
- Energy
- Books and periodicals

PROPERTY
- Land and improvements
- Buildings
- Equipment

OTHER OBJECTS
- Dues and fees
- Judgments against the LEA
- Interest
- Miscellaneous expenditures

- OTHER USES
  - Redemption of principal
  - Housing Authorities obligations

As part of a broad attempt to restructure the prevailing system of educational and municipal governance in the early part of this century, reformers sought to replace the ward-based partisan election system with one which would be essentially nonpartisan and where candidates would be elected at-large in elections which would be held separately from state and federal elections. This reform process also resulted in increasing the relative power of professionals over the community in many school districts. As the reform resulted in decreasing the number of board members and the proportion of board members from less wealthy areas of the community, one could say that the responsiveness of the district to the average community member also declined.[7] In addition, the increasing proportion of board members who were professionals contributed to the likelihood that the board would give greater latitude to the superintendent to exercise his or her judgment as an educational expert.[8]

Moreover, while the superintendent generally was a full-time paid employee, school board members were often part-time volunteers who had otherwise time-consuming careers or other responsibilities. Therefore, one could say that the relative power of the executive over the legislature may have increased during this time period. This is not to say that educational services may not have been delivered more equitably and efficiently after the reform movement, but rather that this may have been done at the expense of responsiveness to the community. This lack of responsiveness to the community is also evident in the object-of-expenditure budgeting format which does little to communicate to the community the purposes for which their tax dollars have been dedicated.

During the middle of this century, budgeting formats in many districts were changed to provide more information regarding the general purpose (or function) for which moneys were expended such as instruction, administration, community services and so on. The following is a classification of expenditures by function:[9]

- INSTRUCTION
- SUPPORT SERVICES
  - Support services-students:
    - Guidance services
    - Health services
    - Psychological services
    - Speech pathology and audiology services
    - Other support services-students

  - Support services-instructional staff:
    - Improvement of instruction services
    - Educational media services
    - Other support services-instructional staff
  - Support services-general administration:
    - Board of education

  Executive administration services
  Special area administration services

Support services-school administration:
  Office of principal service
  Other support services-school administration

Support services-business:
  Fiscal services
  Printing, publishing and duplicating services
  Other support services-business

Operation and maintenance of plant services:
  Supervision of operation and maintenance of plant services
  Operating building services
  Care and upkeep of grounds services
  Vehicle operation and maintenance services
  Security services
  Other operation and maintenance of plant services

Student transportation services:
  Supervision of student transportation services
  Vehicle operation services
  Monitoring services
  Vehicle servicing and maintenance services
  Other student transportation services

Support services-central:
  Planning, research, development and evaluation services
  Information services
  Staff services
  Data processing services
  Other support services

Facilities acquisition and construction services
Other uses:
  Debt services

While this method did not go very far toward a performanced-based approach, it did provide useful cost information to the school board and the public. There are a variety of reasons which may explain the move toward a more standardized function-object system of budgeting. It is often suggested that an increasing state role in financing and governing education has contributed to a more uniform and detailed system of budgeting.

In the process of increasing the portion of school funds generated from state revenue sources, it is only natural that the states would insist on better planning and accounting for those funds. Gradually, the states enacted laws establishing guidelines for local school districts in the receipt and disbursement of school funds. The extent of these requirements and the degree of detail in accounting have increased to the point that most states now have accounting manuals with standardized budgeting and accounting procedures for districts within the state.

More recently, pressures from a variety of sources have created an impetus for some districts to implement budgeting systems which link costs to programs and/or organizational units. Community demands for more accountability may also have been influential in increasing the relevancy of the cost information available to the public. In addition, teachers' unions have become increasingly sophisticated in analyzing school districts' budgets prior to negotiations to determine possible "slack" resources available to increased teacher salaries. These factors, along with state regulations affecting the budgeting process, have heightened pressure on school boards and school administrators to consider the various pros and cons of budgetary frameworks currently available. These include such frameworks as school-site budgeting, program budgeting and zero-based budgeting, in addition to function-object budgeting which is still the most common approach. In a subsequent section, the strengths and weaknesses of each of these budget methods for certain types of communities will be discussed. For each of these frameworks, the particular relative benefits will depend on the characteristics of the community as well as the relationship between the board and the superintendent.

Criteria for Development of a Budgeting System

As previously noted, the choice of an appropriate budgeting system may well be one of the most important choices made by school business administrators. In addition to this choice, school business administrators must make other important decisions which will shape the effectiveness and equity of the overall budgeting system. The budget represents a series of important policy decisions as to what programs and functions in the school district are given priority. The characteristics of a budgeting system affect (and reflect) decisions on who will have a say about how scarce resources are allocated in the district. Such characteristics include the following:

1. *Type of budgeting method*. This will affect the degree to which the board, administrators, teachers and the public are given the kind of cost information that will allow them to make an informed judgment as to whether the resources allocated in the budget relate appropriately to district needs.

2. *Level of centralization vs. decentralization*. This will affect the degree to which those at the school site level are able to reallocate school resources to meet the unique needs of each school.

3. *Level of participation*. The degree to which members of the community and educational professionals are allowed some input into the budget process may affect overall support for the proposed budget.

4. *Timeline for budget development*. The budget calendar may influence the level of participation in terms of whether adequate time is allowed for participation and whether the school community is given ample notice as to when such input is requested.

5. *Level of detail.* If the level of detail is very great, it may limit the flexibility of educational professionals to spend funds in such a way as to maximize educational benefit. (This, of course will depend on the way in which the budget is administered.) On the other hand, a detailed budget may also increase support for a budget as each constituency becomes more aware and is able to better defend the budget.

6. *The degree to which the budget is computerized.* Where cost information is available on computer, the administration may have greater capability to provide "what if" information to answer board questions about the fiscal impact of various policy decisions regarding the way resources might be allocated. In addition, with computers it becomes much easier to provide cost information using multiple budget methods.

7. *The degree to which an incremental approach will be utilized or whether programs must be justified "from zero."* This may influence the degree to which educational professionals feel that the budgeting system works fairly. For example, it is important to balance the need to provide incentives for a system to work effectively and efficiently by considering new approaches, while at the same time maintaining continuity.

In recent years, school business administrators, superintendents and school board members have begun to question whether the function-object (or line-item) based budgeting systems currently in place in a majority of school districts could be improved. A line-item budgeting method may limit the ability of the school board to govern the school district through its decisions regarding educational policy and the way in which resources will be allocated to carry out those policies. In fact, there will be few professionals in the district who do understand the relationship between resources and educational programs and support services. Consequently, while these few individuals may have more flexibility to allocate resources as a result of their specialized knowledge, a broad base of support for this particular budget is not likely to ensue as a result of the budgeting method utilized. Therefore, while the administration may have some advantage over the board as to determining how the budget should be developed and monitored, the amount of resources over which it may have increased control may be lower than if more information had been available to the board and the community as to the purposes for which additional funds may be needed.

As more school districts adopt budgeting methods which closely link dollars to educational programs and support services, there seems to be an implicit decision that the benefits gained from greater support outweigh the costs of sharing such information. In 1982, the American Association of School Administrators (AASA) published a report entitled *School Budgeting: Problems and Solutions* by Donald Hymes. In it Hymes described a variety of factors which called for a reexamination of budgeting in local school districts such as: taxpayer revolts, declining enrollment, increasing state involvement and declining public confidence in the public school system. As a result of these environmental factors and others, the following recommendations for change emerged:

- Start the budget process earlier.
- Involve more people.

- Clarify what you intend to do with the money.
- Write a budget that everybody can understand.
- Relate the budget to the instructional program.
- Use all available means to spread the school message throughout the community.
- Be accountable for district money.[10]

Political, Economic and Demographic Trends

In recent years, changes in political, economic and demographic trends have made it all the more important that budgeting methods adequately communicate to the public how taxpayer dollars will be used to support the school program. Despite the multitude of reform reports during the 1980s, it is not clear whether adequate financing to fund attempts to "reform" the public schools will be forthcoming. Federal aid to education has dropped considerably during the past five years. While many states have mandated new graduation requirements and other major initiatives designed to promote "excellence" in education in recent years, without adequate state financing, the ability of low-wealth school districts to meet new state mandates designed to promote "educational excellence" is severely constrained. If greater state aid does not follow greater state mandates, it will become increasingly difficult to sell budgets to local communities.

This problem will be exacerbated as taxpayers are no longer able to deduct local and state taxes in determining their federal personal income tax.[11] Local school districts may be facing increasing competition from private schools if we continue to move toward voucher and tuition tax credit plans. Presently, a number of districts offer a quasi-voucher plan limited to the public schools, called an open enrollment plan. Students have choices among schools or school programs in a given district. Where districts do elect to offer open enrollment plans it may become increasingly important that budget information is provided to the public showing costs by school to reflect stated educational priorities and in order to demonstrate that students throughout the district are afforded equal educational opportunities.

In addition, demographic data indicate that an increasing proportion of tomorrow's students will be from lower income, minority families. As the proportion of taxpayers with children in public schools diminishes, especially those from the middle to upper middle classes who are in a relatively advantaged position in the political arena, so does community support for school budgets.

Increased state aid to urban school districts may be necessary to maintain educational quality if competition from private schools increases and local support for public schools wanes. In addition, school officials should begin to consider the program and, therefore, budgetary implications stemming from a shift in the student population to one that is increasingly poor, minority, non-English speaking and from one-parent families. The implications of changing demographic trends regarding the political power needed to lobby successfully for sufficient revenues for school budgets from local, state and federal sources are especially important in large urban districts.

Other demographic factors may have an important impact on the ability of school officials to garner fiscal support for the public schools. In some districts enrollments will continue to decline. This is expected to be especially common in the northeast region of the country. During times of declining enrollments, costs per pupil often increase as the fixed costs of buildings, heating, maintenance and operations and administration are spread over fewer students. In addition, total state aid declines as the number of pupils decreases. Unfortunately, at a time when it may be important to open the lines of communication in order to explain the reasons behind increasing per pupil costs and search for cost-effective alternatives, human nature is such that administrators may tend to:

> . . . involve fewer people in the decision-making process, and generally make very conservative decisions so as to avoid mistakes (Whetten, 1981). Needless to say, such behavior may reduce anxiety, but it works against innovative behavior by administrators and teachers. Consequently, the capacity to redefine organizational goals and find new ways of meeting them declines over time. Short-term stress reduction becomes a substitute for long-term solutions to fiscal retrenchment.[12]

Where enrollments have declined to such a degree that school closures are imminent, the problem of maintaining voter support for the school budget becomes increasingly complex. If a decision were made to close a school (or schools), community conflict would be likely to ensue and support for the school budget may diminish. However, if board members succumb to political pressures and do not close a school where enrollments have dropped drastically and a disproportionate amount of the budget is used to maintain half-empty schools, taxpayer support for public schools may also decline due to rising per pupil expenditures without a concomitant increase in educational quality. Under extreme circumstances, as in New York City, Chicago and Cleveland, the failure of school officials to close schools contributed to severe financial problems in each of these urban districts. Therefore, while the political costs of school closures may be high in terms of future support for school budgets, the consequences of inaction may be even greater. The degree to which a given strategy will be appropriate will depend on the culture of the particular district and its ability to finance the budget obligations of the public school system.

In some districts enrollments are increasing, especially at the elementary school level. In fact, by the year 2000 the number of school-age children is expected to increase by over five million, from 44.4 million in 1985 to 49.8 million in 2000.[13] The ability of school districts to increase their share of the tax dollar as demand for educational services rises, will depend on the degree to which they can effectively communicate those needs through the budget processes at the local, state and federal levels. This will be discussed in more depth in the last section of this chapter.

Recommended Components of an "Ideal" Budget

Harry Hartley, has developed a thorough outline for an "ideal" budget designed to increase public understanding of the important fiscal and educational issues facing school districts. The assumption is that a more informed public will be a more supportive public. The outline includes the following important areas:

I. BACKGROUND INFORMATION
  A. Title page and/or cover.
  B. Table of contents or index.

  C. Letter of transmittal, legislative request and/or budget message, executive request, as required by law or custom.
  D. Table of organization and/or program structure.
  E. Budget assumptions, priorities and guidelines.
  F. Budget calendar.
  G. Explanation of budget terms, codes and procedures.

II. EXECUTIVE SUMMARY
  A. Program budget summary.
  B. A summary of the budget by function/object.
  C. Budget crosswalk: programs and the objects within them.
  D. A summary of the budget by location (school or other cost center).
  E. Budget highlights.
  F. Analysis of budget increase.
  G. Comparison with previous year.
  H. Revenue summary.

III. BUDGET DETAIL
  A. Objects of expense.
  B. Program profiles for each program.
  C. Program budgets for each program.

IV. SUPPLEMENTARY INFORMATION
  A. Enrollment projections.
  B. Salary schedules, staffing profiles and employee benefits.
  C. Bonded indebtedness.
  D. Inflation impact statement.
  E. Comparisons with other systems in the same geographical area and state and perhaps with comparably sized districts around the country.
  F. Five-year budget history.
  G. District goals of education.
  H. Profile of the school district and of the town, county or city.
  I. Examples of cost reduction.
  J. Explanation of the use of a zero-based or program budgeting, if applicable.[14]

The outline is flexible in that it allows for inclusion of a variety of budgeting methods and more than one framework may be included to more fully illustrate how public funds are allocated within the district.

Factors To Consider in Choosing a Budgeting Framework

While the function-object budget format is still utilized by a majority of districts in a majority of states, attempts to "reform" local budgeting practices over the past two decades have been common. Professional associations, such as the Association of School Business Officials were early activists in this reform effort. This can be seen in the efforts of the Association to develop and disseminate relevant information about program budgeting systems such as the "Educational Resources Management System" and "Planning, Programming, Budgeting and Evaluating

System." In addition, there seems to be support from the American Association of School Administrators and the National School Boards Association to explore alternatives to function-object budgeting.

Some of the possible alternatives to (or complements of) the function-object budgeting method include: school-site budgeting, program budgeting, zero-based budgeting and the local planning and budgeting model. The latter is not so much a budgeting method, as a way of taking into account cost differences in order to ensure equal educational opportunity.

In choosing a budgeting method it is important to consider not only the technical matters which will affect the relative ease in which a framework can be implemented and administered, but also the political and symbolic aspects which may influence the degree to which the budgeting method selected will enhance community and staff support.

Function-Object Budgeting

The basic steps involved in developing a function-object budget generally contribute to the budget's incremental nature (or in recent times, decremental nature) in three important ways. First, prior to the time in which budget requests are forwarded to the central office, principals and teachers may have some idea as to the percentage increase of the current year's prospective budget as compared to the previous year's. If this is known, there will be a tendency by those submitting requests to "bargain" for their "fair share" of the increase. One of the political strategies will be to ask for more than is necessary knowing that a smaller amount will be allotted. In general, the total dollar amount of the requests will far outreach the total amount of dollars in the budget. Very little documentation may be provided as to the relative priority of a given request. When this happens the burden of proof realistically lies with central office and the board to demonstrate why a given functional area, for example, should not be given the same percentage increase as another functional area. This is especially difficult given the paucity of information provided to the board, superintendent and school business administrator about programmatic impact of reducing or increasing the budget and the general lack of understanding about the technology of "producing education."

Second, there may be very little consensus in the school community as to the relative priority given to the goals of schooling. Goodlad recently surveyed students, teachers and parents about what they considered the single most important goal of intellectual, personal, vocational or social. In general, there was little agreement with less than half the population agreeing on the primary importance being intellectual development. This lack of concurrence is especially true for the high school level.[15] In light of the difficulty in assigning priority rankings to goals, it becomes easier to justify across-the-board increases. Thus, the most important determinant of this year's budget is last year's budget.

Third, the function-object method tends to perpetuate the status quo. Those programs already in place have ready-made constituencies to defend their budget requests. What is more, very little justification is required because constituencies tend to rely on their history of operation. Only where a substantial increase in funding is requested will a substantial budget justification be necessary. Consequently, to avoid elaborate justifications, most constituencies settle for an average increase over last year's budget. This incentive system which perpetuates the status quo may be reflected in all three steps of the budget process: when requests are forwarded up to the superintendent and school business manager, when budget requests are modified and a proposed budget is developed, and when the school board approves a budget.

The function-object budget also tends to be centrally operated. Many experts in the area of school budgeting agree that exemplary school budgets should contain not only a financial plan (with projected revenues and expenditures), but also an educational plan and a priority plan. With the use of function-object budgets, educational and priority plans are often not made explicit, although one could argue that by virtue of the decision to fund certain educational programs at certain levels, an implicit decision has been made as to what educational programs are to be offered in the district and what priority these competing programs are given when scarce resources are allocated. Without making these decisions explicit, school administrators and board members retain a high degree of control over the budgeting process. With a function-object budgeting system, the central office administrators who developed the draft budget are likely to retain a great deal of influence over the school board who will not have sufficient budget information to link costs to educational priorities. The board, therefore, has to rely on the reasons given by central office as to why certain budget items are expected to increase or decrease. This in not to say that board members may not be influential in setting budget priorities, but rather that the costs of obtaining the relevant information to make those decisions are relatively high with the function-object budgeting method.

Moreover, when compared to school-site budgeting, program budgeting or zero-base budgeting, principals may be disadvantaged regarding influence over expenditure decisions where function-object budgets are utilized. While principals and teachers are given input into the budgeting process through the budget requests they send to the central office, often times the process by which these requests are forwarded does not require a formal justification of program priorities which the budget implicitly reflects. Consequently, when budget cuts are made, superintendents and school business officials often do not have sufficient information about the principals' unique perspective about what budget items are likely to have the greatest impact on educational quality. If principals are given some input into both the initial budget development process and the "redevelopment" process, they are likely to be more supportive of the budget as it is approved.

School superintendents and school business administrators may be at a relative advantage with respect to function-object budgeting method in terms of their relatively great knowledge of how funds are allocated in the district that are at a disadvantage when compared to their colleagues in other districts who use budgeting frameworks which more closely link expenditures to programs and/or schools. While this will be discussed in more depth in a later section, it follows that where school administrators use centralized budgeting methods which tend to inhibit staff and community input, they may not receive the same level of political information about what factors influence the relative degree to which the community will support educational programs. Budgeting methods which are less centralized than the function-object method tend to facilitate the ability of school administrators to gather sufficient information and to be able to gauge the educational and financial priorities. With this kind of information, they are able to make decisions which are likely to be reflective of true community priorities and therefore, broaden the base of support for both the budget and the administrators.

Decentralized Budget Structures

For a variety of reasons, some of which have been previously noted, many school districts have begun to consider alternatives to the presently common line-item budget. Some of the reasons stem from the tendency of line-item budgeting to foster a system which is centralized, incremental and has limited community and staff participation. In some districts, growing community demands for accountability and increased school effectiveness may increase the attractiveness of budgeting frameworks which make school and program costs more visible. The fact that districts have become more sophisticated in computerizing their financial management systems facilitates innovation in implementing a new budgeting method, even in states which require that budgets be presented in a function-object format. Moreover, some states have been instrumental in the development of program budget methods and have moved toward statewide implementation, though with mixed success. In addition, the professional associations seem to be applying subtle pressure to encourage a move away from primary reliance on the line-item method. In a recent publication from the Association of American School Administrators (AASA), Hymes makes the following comment:

> Interestingly enough, 78 percent of the respondents to the survey for this report said they use line-item or object budgets in their districts. This raises the question: Could it be mere coincidence that 76 percent of the respondents said the budget problems facing their district were "more serious" now?[16]

Not all factors point toward an increasing trend away from function-object or line-item budgeting. On the contrary, some very influential forces remain committed to the status quo. Those school board members and administrators who have been accustomed to the function-object method may resist any change which would require additional skills development and may result in a shift in control over budgets. The impact of change on the latter is likely to vary depending on a district's characteristics and the types of budget methods involved.

Catherine Kennelly, Director of Financial Management for the Hartford Public School System, described some of the changes that occurred in her district has a result of a conversion from a program budget to a school-site budget:

> School principals suddenly had a clearer picture of the various accounts available for school programs. Conversely, subject coordinators saw themselves losing some control over funds they previously disbursed. Personnel staff had to accustom themselves to new formats for staffing reports. All these situations required an adjustment in thinking and operating and took time to resolve.[17]

Where a district may be moving from a function-object to a school-site, program or zero-base budgeting framework, it is likely to increase the amount of financial control of principals or subject coordinators relative to superintendents and school business officials. The degree to which central office administrators and board members are likely to show a preference for maintaining the function-object framework may depend on their willingness to adapt to change, the degree to which they may be willing to share control and the benefits to their community they may see for the relative effectiveness of a new type of budgeting framework.

Even where board members, administrators, teachers and the community may be receptive to a new type of budgeting framework, the process of implementation is likely to take two to three years for a complete changeover. During the first year, administrators and the school board may review the various structural options, including the potential benefits of combining several types of frameworks in order to develop one uniquely suited to district needs. In the second year, training on the impact that the new method may have on budget development, budget administration and budget evaluation should be provided to board members and school personnel. While the school business administrator will have developed a new budget method for the second year, this may be "mostly for display purposes while people became accustomed to the revised financial reporting format."[18] During the third year of the implementation cycle, the new budget method will be fully operative.

Kennelly points out some side-benefits resulting from the conversion to a new budgeting framework. She reports that any system of financial reporting:

> . . . eventually develops levels of detail in various accounting dimensions that may be too broad or narrow or that may have been adapted to handle a particular situation that had not been taken into consideration at the time that the existing chart of accounts was developed. A systematic and well-planned implementation will result in a conversion that provides useful information for a variety of uses.[19]

Therefore, an initiative to implement a new budgeting system might not only be desirable to promote decentralization, accountability and community and staff participation, but also may result in a more effective and useful system of financial reporting.

Descriptions of some of the more popular alternative budgeting frameworks are provided below. These will be analyzed in terms of their effect on decentralization, accountability, participation and equity. In addition, the potential of each method to promote greater financial support will be analyzed. Finally, the incentive structure inherent in each framework will be discussed, with attention given to the relative advantages created for some groups as a result of the budget method.

School-Site Budgeting

In recent years educational researchers have advocated decentralized budgeting systems in order to enhance the ability of principals to serve as effective instructional leaders.[20] Firestone and Wilson make the case that the kind of budgeting process utilized or developed by school administrators may have an important influence on the culture of the school. They write that, "allocation of discretionary funds in a school in a manner that is fair and that provides extensive support for instruction can promote commitment among teachers and signal that instructional priorities are more important than is often the case."[21] Similarly, many practicing administrators also favor decentralized budgeting systems.[22]

School-site budgeting is, as the name suggests, a budgeting system which uses an individual school building with its attendant educational programs, as the framework, and places the principal at the center of the budgeting process. Arguments against this kind of structure typically include a concern over the principal's time, increased conflict among teachers or departments and lack of ability of the central administration to ensure educational quality and equality. On the other hand, an argument frequently raised in support of school-site budgeting is that it promotes accountability. Principals, with input from subject coordinators and teachers, may now have the autonomy to direct discretionary resources to best meet the needs of their unique student groups. (Of course, this may be contingent on sufficient discretionary resources being available.)

The way in which school-site frameworks will be designed will depend partially on the degree to which school district officials believe principals can realistically be held accountable. For example, at the time when school-site budgeting was being introduced in Florida, a claim was made that the new budgeting framework would give principals an incentive to hold down energy costs. This claim assumes that principals should be held accountable for energy costs. In Fairfield, Connecticut, which uses a school-site budgeting system, a variety of cost categories are not included as part of the individual school's allocation including electricity, fuel and gas. Other categories not included are: attendance and social worker services, transportation, maintenance and operations and other support services. The assumption in Fairfield seems to be that principals should not be held accountable for costs and factors over which they have only minimal control. These include: the relative energy efficiency of the school building, the number of pupils needing the services of social workers, number of pupils transported and overall condition of the facilities.

Since it is important that the system of resource allocation take into account those students with special educational needs, prior to the time that the budget is determined, an enrollment projection is needed which takes into account those student characteristics that may affect the level of funding provided (e.g. special education, gifted, kindergarten and for some districts those who are chronically absent).

The system of school-site budgeting in Fairfield also works under the assumption that building principals should not be held accountable for the relative seniority of the teaching staff, especially in light of the fact that the large majority of teachers are tenured. Consequently, average salaries of teachers are used when developing staffing patterns. This means that schools are not penalized by receiving fewer staff positions solely because their teachers are more experienced. In Sanborn, New York, staff and supply costs were listed by subjects, but also the budget included a section on program evaluation which attempts to link costs to program performance and future goals.[23]

Another advantage of school-site budgeting is its likelihood of increasing the level of participation of both staff and community, as staff and parents will attempt to protect the turf of their individual schools and favorite programs. When five percent must be cut from a function-object budget, there is often an assumption that only those superfluous budget items will be cut or that an across the board cut will be relatively painless. Consequently, the level of support to maintain or increase the budget may be greater with a school-site budget than a function-object budget.

The relative advantage of a school-site budget may be especially great in districts like Fairfield, Connecticut, where the school district budget must be approved by the town council. Where the school district must compete with municipal services for financial support, the higher level of community and staff participation is especially important. In addition, greater participation is likely to have the highest relative payoff in wealthy communities, especially those where budget caps are not in existence, since these communities have the fiscal capacity to raise additional resources for the public school system. Wealthy communities are also more likely to accede to the demands for greater educational services, for they tend to show a relatively high preference for both education and a minimum level of public conflict.[24] Consequently, the choice of a school-site budgeting system for this particular type of community may be an astute political decision.

While eighty percent of the districts in the United States are independent and, therefore, have control over setting the overall school budget, for dependent school districts, municipalities or the counties which determine the size of the overall budget must be considered as important political variables.

The degree to which equity is promoted by a school-site budgeting system depends on how resources are allocated to the school sites. In some districts the amount of funds allocated to a particular school may depend primarily on the number of students which may contribute to the costs of providing a certain quality education. These factors should be identified and additional resources provided where justified so that children from each school will be afforded an equal educational opportunity. Unfortunately, it is often very difficult to distinguish between those factors which are under the control of the principal from those that are not. In addition, some schools may have certain non-recurring expenses associated with a special educational project.

It is important to balance the need to be flexible in the short term with the need to ensure equity over the long run. In some districts, the varying abilities of principals to justify the need for additional resources, coupled with the fact that the community groups for some schools may have greater political resources, results in a system which is inequitable both in the short and the long run. Supporters of school-site budgeting may argue that this is no more of a problem where costs are broken down by school and made visible to the public, than in function-object budgets where inequities may be hidden. In fact, continuing the argument, such inequities are more likely to be identified and redressed when a school-site budget is utilized.

It is not necessarily clear who the "winners" and "losers" will be where school-site budgets are implemented. Generally speaking, it seems that those at the school level will have greater control over the budget and those at the central office will have less control than they do with a function-object budget. The actual realities are likely to vary from district to district. In some districts financial resources may be so tight that principals may have very little discretion. Consequently, the increased pressure they face from interest groups which may either want greater input and/or accountability may outweigh the benefits they see from having "greater financial control." Principals may face greater psychic costs by having to determine which of the requests made by teachers will be granted. Consequently, greater discretion over how resources are allocated may be costly in terms of the potential impact on the collegial relations between the principal and teachers and among teachers. The actual benefits of school-site budget will depend to a great extent on the level of trust between the principal and teachers.

The success of a school-site budgeting framework will also be dependent on the working relationships between the superintendent and principals. One potential abuse of a school-site budgeting system could be that some principals may be more likely to engage in "empire-building" and perhaps work at cross-purposes to district policies regarding students and staff. Where the school-site budget method is used effectively, it will be important that, while principals may have some discretion to meet the needs of their unique school communities, they also work closely with the central office to achieve district-wide goals and maintain continuity. Where school boards allow special interest groups from any one particular school community to dominate the budgeting process, abuses similar to those of the ward-based election systems are likely to occur. It is, therefore, essential that school boards act for the benefit of the overall district, rather than promote the special interests of any one particular school community. Where school district communities are divided, a school-site budgeting system may not be advisable as it may result in intense conflict. When a choice is made to implement a school-site budgeting system, careful political judgment is needed to predict whether it would result in destructive conflict or a healthy discussion of the common and individual needs of various school communities. If intense conflict results, the overall level of community support for the budget may decrease.

Program Budgeting

As school districts may tend to move away from centralized approaches to budgeting, there is a growing interest in budgets which enable board members and interested community members to examine costs by program (e.g. high school science) rather than by function (e.g. instruction) or objects of expenditure (e.g. salaries). Those who favor program budgeting argue that an informed public is more supportive of the school budget. Having cost information available at the program level is expected to increase the ability of decision makers to achieve a cost-effective balance between increasing program quality and holding down unnecessary costs.

In 1965, Lyndon Johnson announced that a program planning and budgeting system would be used throughout the federal government.[25] Shortly after this announcement, school districts began to adapt some of the basic components in their budgeting systems. A number of school budgeting experts at the Association of School Business Officials International (ASBO) studied potential benefits of program budgeting and developed materials designed to increase the effectiveness of implementation. They defined program budgeting as follows:

> A structured procedure for determining policy in the allocation of resources for the accomplishment of priority programs; emphasizes long-range planning, analytic evaluative tools, economic rationality in the determination of programs and in the setting of goals and objectives.[26]

A few years later, ASBO developed *PPBES—Show and Tell Handbook* which was designed to provide timely information about the ways in which planning, programming, budgeting and evaluation systems had been implemented in a variety of school districts.[27]

Generally speaking, in order to implement PPBES, school districts must first determine what constitutes a *program* structure. In other words, they must identify the specific units to which resources will be allocated and where results will be evaluated. This can be decided after careful consideration of the district's goals and objectives based on a determination of sets of goals and objectives which are rationally related and, therefore, should be grouped together. More often than not, program structure is based on organizational structure. The latter works fine where common goals exist among organizational components. But, as discussed above, many have organizational structures which no longer serve current needs.

A classification of expenditures by program recommended by the National Center for Educational Statistics is as follows:[28]

- REGULAR PROGRAMS-ELEMENTARY/SECONDARY
- SPECIAL PROGRAMS
  - Mentally retarded
    - Educable mentally retarded
    - Trainable mentally retarded
  - Physically handicapped
    - Hard of hearing
    - Deaf
    - Deaf-blind
    - Visually handicapped
    - Speech impaired
    - Crippled
    - Other health impaired
  - Emotionally disturbed
  - Learning disabled
  - Culturally deprived
  - Bilingual
  - Gifted and Talented
  - Vocational programs
    - Agriculture
    - Distributive education
    - Health occupations
    - Home economics
      - Occupational
      - Consumer and homemaking
    - Industrial arts
    - Office occupations
    - Technical education
    - Trades and industrial occupations
    - Other vocational programs
  - Other instructional programs-elementary/secondary
    - School-sponsored cocurricular activities
    - School-sponsored athletics
    - Other
  - Nonpublic school programs
  - Adult/continuing education programs
  - Community/junior college educational programs
  - Community services programs
    - Community recreation
    - Civic services
    - Public library services
    - Custody and child care services
    - Welfare activities
    - Other community services

- Enterprise programs
  - Food services
  - Other enterprise programs
- Undistributed expenditures

Second, *planning* is necessary to determine program priorities. In order to do this effectively one must take into account many factors including: the present composition of the student body, the way in which student needs are likely to change over the next five years, state or federal mandates, collective bargaining agreements, the fiscal capacity of the district, relative willingness of the voters to increase tax effort and state and federal aid. Some examination of the present and future roles that these factors will play in effecting resource requirements for both operating and capital expenditures will be necessary to build a budget that is not only suited to today's program needs but is also cost-effective for the long run.

For example, districts which build new schools without taking into account declining enrollments expected in the future may be able to devise a cost-effective alternative with adequate information. In other districts, it may be important to take into account the additional space requirements needed for new local or state programs (e.g. all-day kindergarten) or special education (especially where there is a shift in program priorities toward bringing children back to the district), before initiating a school closing or a capital construction project.

In building the actual *budget* it is important to take into account the priorities given to various programs and program alternatives, in the process of allocating scarce resources. The costs and relative effectiveness of each program and program alternative should be considered. While in theory, program information should reduce the reliance on incremental across-the-board changes in the budget, this is often not the case. In the absence of concrete evidence it is often easier to treat all programs the same. Unfortunately, educational technology is not advanced enough to tell us the benefits that can be derived from increasing expenditures for a given program by ten percent.

Evaluation which is an integral component of PPBES, is designed to provide more information about the effect of patterns of resource allocation on the degree to which program goals and objectives are successfully achieved. Information regarding outcomes is useful in building the next year's budget. In districts where the evaluation component is deemed too time-consuming, PPBS is often the preferred alternative.

Program budgeting may promote some kind of decentralization where subject coordinators and teachers are given more say about educational spending decisions. Those who are closest to the students may have the most accurate information about students' educational needs as well as what types of educational resources may be most effective. However, where subject coordinators and teachers are given more control over the budget it is crucial that the principal be informed about specific program priorities, in order to ensure coordination across grade levels and across subject areas. This may be especially difficult in large secondary schools.

In a similar manner, it may be difficult for district-level administrators to coordinate among schools in very large districts. Ironically, it is often in these very large schools and systems that decentralization of budgeting authority may be most beneficial, precisely because it is so difficult for principals and central office administrators to be fully informed about program needs. Consequently, better information systems are needed to help administrators balance unique program needs against a need for continuity. Program budgeting, which includes an analysis of the relative effectiveness of a given program alternative, may be a move in the right direction.

Program budgeting should give rise to greater accountability than function-object budgeting. A focus on the priorities given to various programs and a concern for the degree to which program objectives are being met in a cost-effective manner may cause school officials to carefully reevaluate past practices. Programs which are no longer deemed useful to students (such as home economics) may be revamped or scaled down and new programs/alternatives may be tested and implemented in various school settings (e.g. computer assisted instruction).

Like school-site budgeting, program budgeting is likely to increase the level of staff and community participation as people attempt to protect their preferred programs. In a similar manner it is likely that the level of overall financial support for the schools will increase with a program budget, as groups seek to protect "their turf." At the same time, an important drawback of program budgeting is the likelihood of increase in "turf" squirmishes. The school board, staff or community may question why the costs for one program (e.g. English) are greater than for another (e.g. math). Differences in expenditures may result from relatively obscure reasons such as one program's teachers being more senior than another. In that case, it may be preferable to use average teacher salaries. Generally, program budgeting will require careful explanation of cost differences to the board and the public.

As with the school-site budgeting methods, care must be taken to ensure equity. While some programs may require greater expenditures, either due to greater student need or the fact that it is a high priority program, care should be taken to ensure that students are treated in an equitable manner. For example, districts should determine whether the more academically able students are taught by more experienced teachers, have more up-to-date equipment and have smaller classes than less academically able students, so that one group of students is not unfairly disadvantaged by the resource allocation process. At the present time, most districts cannot perform this analysis due to the lack of adequate cost information and a suitable management information system.

When compared to the function-object budget, one would expect that the incentive structure in a program budget would perpetuate the status quo with established programs while facilitating the introduction and development of new programs. In addition, one might also expect that subject matter coordinators and teachers would be more involved in budget development and implementation than in either function-object budget systems or school-site budget methods. It does not necessarily follow that this greater involvement will come at the expense of the influence over budget of the superintendent, business manager and the school board. Decisions about what programs will be funded will still be made at the district level. Program budgeting, however, with faster operational level information which can strengthen the ability of groups and schools to effectively present program needs to the community.

In addition, those at the district level have a great influence over program structure which can influence the degree to which some program costs are highlighted in a budget, while others remain hidden. One of the concerns about program budgeting in those states which have attempted to mandate its use, is that it may give too much control to those at the district level. The New Jersey Educational Association recently opposed an attempt to mandate program budgeting in that state as they feared that, in those programs where the students' scores on standardized tests were low, teachers would be penalized.[29] Therefore, a high level of trust among the board, the superintendent and teachers may be a prerequisite to the successful implementation of program building.

Zero-Based Budgeting

Some school districts have implemented zero-based budgeting frameworks in order to promote accountability. Rather than utilizing an add-on or incremental approach, zero-based budgeting assumes that all budgeted items should be justified from zero. It assumes that those at the operational level specify the resources that are needed with various programmatic options to meet the overall goals of their programs, and that the most cost-effective program option or package is chosen. In addition, those at the operational level are asked to submit program packages under a few (usually three) different sets of assumptions. Using a general example, three levels of program operation might result from three types of budget assumptions as follow: 1) minimal—assuming a ten percent decrease in the programs budget; 2) facilitating—assuming the budget stays about the same, perhaps adjusted upward for inflation; and 3) optimal—assuming a ten percent increase in the budget. Program priorities are then considered when school officials decide which programs to fund at what level.

Those who support the zero-based budgeting (ZBB) concept argue that it allows those with expertise at the operational level (principals, department heads and teachers) have input into the budget making process giving them a feeling of "ownership." Second, they argue that school officials are encouraged to make decisions based on program priorities, rather than maintaining programs regardless of current need or merit. Third, ZBB may have important political ramifications. It may help to "sell a budget" to a board or a community concerned with accountability. As an example, one high school principal has stated that the implementation of ZBB in his district resulted in decreasing the time spent at board meetings justifying the budget because the justifications were already documented. ZBB may also increase both public understanding of the budget and financial support for it. For example, while this year's budget in a particular district resulted in a substantial increase over the previous year, using ZBB it became clear to the board and the public that much of the increase was needed to fund a "program package" needed to meet state-mandated reforms not under the district's control.

While both zero-based budgeting and program budgeting rely on a program structure, they also have some important differences. Hentschke has described the major tasks of ZBB as being:[30]

1. Formulate decision packages.
    a. Purpose of activity.
    b. Consequences of non performing.
    c. Measures of performances.
    d. Alternative courses of action.
    e. Cost/benefits.
2. Rank decision packages.

ZBB, which tends to have a bottom-up approach to budgeting, is common in industry where the goals of the subunits (e.g. making a profit) tend to be in line with the goals of the larger organization (e.g. making a profit). In school districts, on the other hand, the goals and objectives are numerous, diverse and complex. Consequently, the task of coordinating the goals and objectives at the school and classroom levels with those on the district level may be more difficult. In heterogeneous districts, however, schools within the system (and programs within the schools) which differ greatly regarding the nature of the students they serve, so more discretion at the school and program levels in determining spending priorities may be costeffective.

Program budgeting like PPBS involves the central office a great deal more than ZBB in designing a program structure and determining program priorities, and its tasks reflect this same central office orientation as follows:

1. Develop goal/objective hierarchy.
2. Develop programmatic classifications.
3. Sort organization's activities into programs.
4. Analyze alternative programs through cost/benefit analysis.
5. Develop multi-year program and financial plans.[31]

It is not intuitively obvious whether this task of coordination can be achieved more cost effectively with ZBB or PPBS. With ZBB top level decision makers are given more information as to the potential benefits of various program alternatives seen through the eyes of those at the program level. With PPBS top level decision makers may uncover unnecessary overlap and ineffiencies as they develop a goal/objective hierarchy and a program structure that serves the total system. Which framework may be more effective for a given district may depend on the degree to which a districts' organizational goals and objectives and program may fruitfully benefit from a review and the relative experience of top level decision makers as opposed to program level decision makers. Peter Pyhrr, one of the primary proponents of ZBB makes the case that the "identification and evaluation of each activity is especially helpful for managers assuming new responsibilities, since the packages and rankings provide a ready access library describing and analyzing the commitments of each activity."[32]

In "Zero-Based Budgeting is a Fraud," Robert Anthony notes that when former President Carter instituted ZBB in the state of Georgia, departments were expected to justify their budgets not from zero, but from eighty percent. It may not be a major drawback that each program package is not justified from zero each year. In fact, when applied to school districts where many of the programs are mandated or part of the district curriculum, one would not expect that a district would annually consider "zeroing-out" each program. Indeed, one of the major complaints of ZBB from school district officials is that such an in-depth review should only be undergone for non-essential programs, or that only certain proportion of the district's programs should be reviewed under the ZBB framework each year.

One potential problem of ZBB has to do with equity. If the existence or continuation of a program depends on the degree to which it can be justified, students in those programs where the developers of the decision packages are less experienced or less sophisticated may suffer as a result. While the incentive structure of ZBB is such that those at the operational level are given the opportunity to make the case for the promotion of their programs, it has some drawbacks. For example, staff may be rewarded more on the basis of their skills in public relations rather than on their ability to create and manage effective educational programs. Consequently, it becomes important that those at the district level have a knowledge of actual program operations and performance, as well as their degree of public support. In addition, as one high school principal explained, it is important that teachers and subject coordinators present program needs accurately to ensure credibility with the principal, superintendent and board of education. In this way the budget may also seem more credible to the taxpayers.

Summary and Conclusions

In conclusion, choice of an appropriate budget method for a particular district may be an important decision for a variety of reasons. First, some budget methods (such as program budgeting, school-site budgeting and zero-based budgeting) may promote greater board and community understanding of the budget and ultimately the district's priorities. If the board and the community can see the connection between dollars and educational programs, it is likely that the school board will be more successful in selling the budget to the community, as well as determining which educational program priorities are seen as being important to the community.

Second, budget methods which result in better community understanding (and effective public relations) may result in increased financial support for schools in general. It is likely that a budget process which invites community participation will result in an increased level of support because the public feels more invested in the budget.[33]

Third, the choice of a particular budgeting method may restructure the incentive systems which influence curriculum coordination and effective and appropriate instructional programs. The benefits of a move toward greater decentralization may increase the ability of the school principal to effectively target resources to achieve program goals. One of the drawbacks to decentralization is that curriculum coordination across programs and schools may become difficult. Similarly, one of the benefits of budget methods which attempt to target resources to program needs, rather than incrementally applying an across-the-board increase, is that these methods aim to increase cost effectiveness. A potential drawback of a budget method which encourages principals, subject coordinators and teachers to "sell" their respective programs and projects is the inordinate amount of staff time needed to document needs for resources—staff time which might be better used for carrying out successful instructional programs. An effective management information system, open lines of communication among the staff and a concern for equity should ameliorate some of these problems, while allowing school administrators to both target resources to individual students' needs at the same time he or she manages a consistent and coherent educational program.

Finally, the relative influence of various political actors on the board and in the community may be altered with the implementation of a new budgeting method. One of the potential disadvantages of a budget method which does not use an "objective" formula to allocate resources is that politically active groups may be in an advantageous position to lobby for additional funds. Therefore, when using certain budgeting models which allow for community participation, great care should be taken to effectively guard against undue influence of special interest groups. In the end, the degree to which children will receive equal access to educational resources will depend to a large extent, on the commitment of school officials to equity and excellence.

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7

Quantitative Decision Making

Grover H. Baldwin

In recent years there has been an increased move for accountability on the part of educators. Demands by the public have included the more effective and efficient use of resources. These demands are evidenced through the limiting of financial resources via rejection of budgets and the increasing demands for excellence in education by various citizens and taxpayer groups. School business administrators have turned to cost benefit and cost effective/efficient models and techniques in order to provide quality educational services and contain costs. These quantitative methods provide a much needed framework in which the school business administrator can answer the basic economic decisions facing the district—what is the best course of action for the proffered sources.

These techniques have proved helpful not only in increasing the rate of return for budgeted dollars, but also in the budgeting process and in analyzing materials and resources. While benefit/effectiveness and efficiency methods are not the sole means on which to base decisions, they permit surveillance of programs and thus provide a means to improve them. These methods also provide comparisons among programs competing for scarce resources and permit the identification of problem areas.

The need for more effective decision making and the potential use of quantitative decision-making tools has come from the public's demand that schools be accountable for their actions while optimizing their resources. As Gruber and Mohr indicate:

> There is a growing demand for accountability in a sophisticated donor community, motivated in part by the generally poor economic environment. This provides the impetus for the adoption of well-known business concepts so that nonprofit organizations may use their dwindling funds more effectively. Administrators and boards of directors of nonprofit organizations will be faced with increasingly severe competition for time, money and management skills as the nonprofit sector becomes more cost conscious.[1]

Within this rapidly changing environment, organizations which continue to react as if they operate within a stable environment, ultimately will be forced to change in a dramatic and revolutionary manner, i.e., to adopt an entrepreneurial management style. This calls for recognition of the limitations of the reactive style of management which lets events control the organization and a change to a management style that detects early disturbances and meets the challenges of the environment before they become devastating. It also means that the management of the district must utilize techniques that are associated with the economic decision-making process of optimization, rather than the use of satisfying needs as is currently used in nonprofit organizations.

Satisfying implies the acceptance and use of the first "best" solution to the problem. Optimization involves the more detailed examination of the problem and then the application of the best solution to the problem. Typically, educational and other nonprofit organizations have opted to satisfy on a case-by-case basis as they have been faced with various populations and interest groups that all demand different results. There now appears to be a movement toward the consolidation of the various interest groups centered around the single economic question of achieving the greatest return on their investment. Thus, the argument that the public sector is vastly different from the private, and hence could not optimize their solutions and decisions, falters in light of recent and growing demands.

Quantitative decision-making tools that have long been part of the private sector decision-making process, while not guaranteeing perfect solutions, do provide the basis for rational decisions that permit greater analysis of the various aspects of the issues and programs under consideration. Further, they provide the flexibility and sensitivity to the nuances of various decision structures. While the older forms of quantitative tools—including linear programming, PPBS, CPM and Pert—still have application in the changing environment, the techniques of decision logic tables, decision tree analysis, economic order quantity and multi-criteria analysis now serve the management of school districts. At the same time, use of microcomputers, with their capacity to utilize these techniques with great speed while handling greater amounts of information, facilitate the use of these techniques by the school business administrator. The school business administrator now can concentrate on problem identification and selection of the optimal solution, while the computers handle the complex and time-consuming computations.

This is not to imply that the computer and the techniques alone will provide the solution. The purpose of quantitative decision-making tools is, and always will be, analysis of information regarding the true nature of the issue to permit the individual decision maker to render the best decision for the organization. The use of these techniques provides the decision maker with a range of alternatives and permits the acceptance and use of the optimal solution, and decreases the risk and uncertainty facing the individual decision maker. The information generated by these techniques provides a firm base, within the realm of probability and uncertainty, on which to base decisions. Whether these techniques will dehumanize the decision-making process and reduce it to a mechanistic, totally rational and unfeeling process, depends solely on the individual using the processes.[2] Inasmuch as school business administrators operate within an open decision-making environment, they will be able to incorporate these processes.

How do these techniques affect the role of the school business administrator? First, it should be noted that it appears that the school business administrator is the individual within the school administration who is best suited to use these techniques, since the training in financial analysis and decision-making received by these individuals lends itself to the quantitative decision-making process. Thus, the school business administrator is the logical person to oversee the implementation and management of these processes. A second function that the school business administrator has with respect to these techniques is to assist other management personnel to effectively apply these processes to their own decision-making activities.

While the private sector initially assigned these tools and processes to specialists within the organization, known as "strategic planners," recent reports indicate that strategic planning staffs have been, and are being, reduced in favor of increasing the involvement of line managers in the decision-making process.[3] Within the field of education, there is ever increasing demand for school site budgeting, the use of management by objectives and accountability in general by building principals and central office personnel. Training of such personnel in the effective use of these techniques would greatly support managerial effectiveness of school district operations. Thus, the school business administrator's knowledge of the problem resolution techniques that are most appropriate for education, the application of these techniques via microcomputer technology and the transmitting of this information and skills to the line management are a crucial part of the school business administrator's function.

Problem Finding, Models and Problem Solving

The beginning of the process of solving problems lies in the development and refinement of the problem itself. While the school business administrator may be accustomed to dealing with crises and resolving issues and problems on a day-to-day basis, the essence of successful utilization of quantitative decision-making tools lies in the establishment of the true problem. This is a creative, challenging and thought-provoking process which calls on management, either singularly or as a team, to identify the elements which caused, created and control the issues that are identified as problems.

The most common approach to problem-identification is the "after the fact method" which focuses on causes of problems within the organization. The preferred approach is that of identifying the elements, variables, constraints, risks and uncertainties that face the organization and then establishing the relationship among these elements which contribute to the problem to be solved.[4] This approach, which keeps the management dealing with the real issues of the problem and not merely the symptoms, requires the adoption of a perspective that permits creative and divergent thinking.

To successfully use the process, management must recognize its role as the catalyst for effective decision making within the district. This first calls on the management to have a clear picture of what they desire and where the organization is going. Without this clear objective or goal the organization will continue to merely react to the process and not proactive in its management which increasingly is called on to meet the demands of a varied public.

The process is not a straight line, lock-step process, but rather an ebb and flow of creativity that leads beyond the symptoms to the problem. The decision maker goes through various stages in development and refinement of the problem. First, the individual establishes the global concerns of the organization by answering the question, "What are the the specific elements that constitute the goals and objectives of the organization?" To answer this, the manager needs to: 1) examine both the internal and external environments which affect the organization; 2) identify the demands of individuals and groups within these environments; and 3) determine the effect and relationship between these two sectors on the organizational goals and objectives. The internal environment includes the personnel, the organizational make-up and the circumstantial elements and constraints within the organization itself. The external environment includes the patrons of the district and the competition from both the private sector educational establishments and the neighboring public school districts.

The second step is to identify the variables—independent, dependent, confounding or extraneous—and the constraints that are part of the situation and their relationship. Through careful examination and critical evaluation of the information which confronts the individual, certain variables are eliminated and others used as part of the problem-finding process. This step includes the sharing of the ideas and variables with others on the management team, and not only assures that the variables are germane to the issue (i.e., not merely symptoms), but also that they are precisely stated and provide for a range of applicability and usefulness.

After locating the variables, the decision maker creatively combines them to examine their effects on each other and ultimately establish a set of interrelationships as the true problem. Identification of significant interrelationships is the third step. Once a set of variables and effects has been identified, the individual moves to the fourth step, the establishment of solutions of the problem.

In establishing the possibilities from which the solution will be selected, the individual must identify a *complete set of choices.* This is a part of the problem-finding process that demands creativity. All opportunities, possibilities and choices must be identified. There are limitations to the process due to the uncertainties and risks which are associated with the choices and the environment, but as nearly as possible, these uncertainties must be ascertained. In examining the possibilities, the individual must account for the conditions under which each choice would optimally solve the problem, determine the consequences of putting each choice in place and establish the criteria on which to judge the effectiveness of using each of the alternatives. This last point is directly related to the goals and objectives of the organization. These goals and objectives become the guiding principle for the decision maker in selecting from the numerous possibilities the optimal alternative to solve the problem.

What can be done about the uncertainties and the risks that face the decision maker? This is where the judgment, creativity and insight of the individual come into play. Although we cannot control all factors and while certain risks and uncertainties will remain, the individual must reduce these to the barest minimum. Based on past experience and information and the use of forecasting techniques, the decision-maker eliminates from consideration those aspects of the environment that do not significantly affect the actions to be taken. The decision maker needs to quantify the risks and uncertainties with respect to probability, and apply the probabilities to each alternative being considered in order to determine the optimal solution. In the end, however, problem resolution is a "judgment call" made with the help of a repertoire of the creative, proactive managerial tools.

Problem finding before the fact is the important function of the management team in the current and future environment. Shoennauer indicates that this process involves five activities: 1) a *change audit*—the examination of the needed changes to meet the goals and objectives of the organization; 2) a *decision audit*—the examination of the decision-making process itself and the information needed to render the decision; 3) an *implementation audit*—involving the examination of the process for the implementation of the decision; 4) a *resource audit*—the scrutiny of the resources available and needed to produce the desired consequences of the proposed action to meet the goals and objectives of the organization; 5) and an *activity audit*—the step-by-step process of the decision.[5] These audits should be conducted prior to making the decision, as they will permit the decision maker to examine the effects of each viable alternative and examine it for potential failure or harm to the organization, or for not fulfilling the goals and objectives of the organization in an appropriate manner.

The question arises as to how best to complete the problem-finding process. The answer, in part, lies in the use of models. While the decision maker must be creative and use intuitive means to identify the problem, the use of a formal process including models will permit the examination and accounting of all potential variables and solutions and permit the selection of the optimal model. The individual remains the key in the entire process. The models, which are representations of reality, are merely techniques by which the individual can better utilize powers of analysis and selection in order to consider all possible choices prior to rendering a decision.

Models come in three types: *iconic*, or toy models such as children use; *analog*, or proportionate models such as a tire gauge that represents the pressure in a tire on some scale; and, the type with which we are most concerned, *mathematical* symbolic models which use mathematical notations to describe the relationships among various aspect of the environment.[6] For the decision maker the use of models assists by: 1) categorizing the various aspects of the situation; 2) permitting an inclusion of all choices; 3) identifying and thereby reducing the risks and uncertainties in the decision making, and 4) rendering data concerning the possible optimal solution given various states of nature and conditions and possible solutions. Models are used most effectively as an adjunct to the decision maker's intuitive powers and provide a formal setting in which to test possibilities against the fulfillment of the desired goals and objectives without risking loss of time, money and effort.

There are two kinds of models with which decision makers are concerned. The first is the *deterministic model* that deals with the selection of an optimal solution where all variables can be identified. Such a model could be used to make determinations concerning the number of staff needed in the next academic year, the number of textbooks needed and so on. The second type, the *stochastic model*, is used when uncontrollable factors or variables exist. It calls on the individual to use probabilities as a means to account for these factors and then to apply them to the model to render data concerning the best possible solution.

The use of models provides guidance to the individual and insight into the relationships among the variables. The use of models enhances the intuitive decision-making capabilities of the manager and the organization. The application of models can be made to both operational (day-to-day) decisions as well as to the determination of long-term goals and objectives and the implementations plans needed to accomplish these goals.

Models, however, are not always the best tools for decision makers. They are best used when they can save time, money and effort, permit more efficient management of the organization, reduce errors in decision making and implementation and promote communication among members of the management team, the staff and the public.[7] Models should not be considered for use where: there is little incentive such as in the stable environment of the nonprofit organization (although such conditions in school districts have vastly changed to a dynamic and constantly changing environment); decisions are of a qualitative nature (although the use of multi-criteria decision-making techniques may assist in the decision process); or there is not sufficient information regarding the various aspects of the problem to permit quantification of the probabilities of the risks and uncertainties to render effective use of the model.

Effective use of models as decision-making tools requires that they be as simple as possible to use and understand. Prior to the introduction of microcomputers an argument against the use of mathematical models was based on the time-consuming aspects of completing the model. With the introduction of microcomputers and various spreadsheet programs, however, today's decision maker is already constructing and using models of a deterministic nature to forecast possible solutions and render decsions about the optimal choice to meet the district's objectives.

A case in point is the following spreadsheet program regarding budgetary concerns for a district. Using a common spreadsheet program, the school business administrator can construct a comparison set of the budget currently in operation and the proposed changes for next year. Although deterministic to a point, the school business administrator must enter probable expenditures in each category (based on information gathered about costs, negotiations and so on), and balance these against the millage for the district. The result is a millage figure that provides an indication of the needed increase or decrease. By changing the categories based on information provided through communication with the remainder of the management team, the school business administrator can quickly determine the optimum budget or provide information to the remainder of the management team concerning cost factors and areas that might be reduced to meet the level of expenditures desired.

Table 7:1 **Proprosed Budget for a School District**

Budget Category	Title	1984-85	1985-86	Difference $ inc./dec.	% inc./dec.
0101	Admin.	136604.00	154500.00	17896.00	1.13
0200	Instruction	1822133.00	1963300.00	141167.00	1.08
0300	Attendance	3000.00	1000.00	-2000.00	0.33
0400	Health	28584.00	30928.00	2344.00	1.08
0600	Repair	267021.00	265432.00	-1589.00	0.99
0700	Maintenance	54552.00	56423.00	1871.00	1.03
0800	Fixed	229952.00	259132.00	29180.00	1.13
1000	Stud. Act.	26265.00	24133.00	-2132.00	0.92
1200	Capital Outl.	5000.00	7000.00	2000.00	1.40
Total		2573111.00	2761848.00	188737.00	0.07

NOTE: Millage 1 mill = 32518.00 5.80 mill inc. or dec.
▪1.00 plus means an increase; 00 - .99 means a decrease.

Use of the spreadsheet is fast, economical and efficient in producing the information needed by the district. Further, the use of such a model fosters open communication among the district management team. It also provides a before-the-fact consideration of alternatives, risks and uncertainties which allows the optimal solution, with individual variations, to be produced.

The nature of problem finding and the use of models is to provide the decision maker, whether an individual or a team, the opportunity to consider the ramifications of various possibilities, alternatives, risks and uncertainties on the nature of a particular problem, and then to use this information to augment the intuitive judgment of the decision maker in finding an optimal solution.

Decision Logic Tables

Decision logic tables are models or representations of the decision-making process where conditions, actions and rules are applied in a logical manner to various states of nature that exist in the environment of the organization.[8] They should be concise, easily understood and maintained to permit their effective use by all individuals concerned with the issues. Decision logic tables provide a means by which viewers can discern the relationships between the antecedent conditions within the environment and the resulting actions and decisions taken by the school business administrator. The use of such tables is intended to: provide clarity in the explanation of decisions, help to insure their accuracy and consistency within the precedent setting trend of management, and provide for those outside the decision-making process a means by which to analyze the decisions.

Decision logic tables also serve to facilitate communications and enhance consistency of decisions, particularly in cases involving collective negotiations and issues of fairness of treatment of requests.

The model follows *if-then* logic—*if* certain conditions are met, *then* certain actions will automatically result. The table is established in a matrix format and facilitates the management of information and decision making. The best application of decision logic tables is to determine whether specific organizational goals and objectives are being met. Again, the school business administrator needs to be specific as to the objectives, the conditions and the alternative courses of action and state these in performance terms.

There are three primary forms of decision logic tables applicable to school organizations: the limited entry point table, the extended entry table, and the most popular mixed entry point table. They are described using a specific example and illustrated in Tables 7:2-4.

For example, using a limited entry point table, the issue facing the school business administrator is the selection of a contractor to provide a specific service to the organization. There are two relevant antecedent conditions: 1) demonstrated capability to perform the task through prior work; and 2) labor costs of the contractor. There are three possible actions that might be taken for each prospective contractor: 1) approve the contractor, 2) reject the contractor, or 3) award part of the contract to the contractor. There are only four states of nature in this example, noted as either Y(es) or N(o) in the table. The "X" in the action category denotes the action taken by the decision maker. The example demonstrates that the decision maker must follow specific guidelines designed to promote effective decisions and demonstrate consistency and impartiality. The criteria for the incomplete award are missing. This aspect of the table can be dealt with by having the decision maker refer to the second table, as indicated by the asterisk and the footnote, which permits additional conditions to be established and, on being met, return to the primary table for the final decision.

Table 7:2 Contractor Awarding

Conditions	States of Nature			
Prior Work	Y	Y	N	N
Labor Costs	Y	N	Y*	N
Actions				
Approve	X			
Reject		X		X
Incomplete Award			X	

*Refer to Table 7:3 for incomplete awards.

A second type of decision logic table is the extended entry table. This table accommodates additional conditions, usually of a more specific nature, and permits a more detailed examination of the states of nature within the organization than the limited entry type. An extension of Table 7:2 includes specific criteria for prior work experience is found in Table 7:3.

Table 7:3 Contractor Awarding

Conditions	States of Nature			
Prior Work	Y	Y	N	Y
Costs Below specs	Y	N		N
Costs on specific items below specs			Y	
Actions				
Approve	X			
Reject		X		X
Incomplete Award			X	

Table 7:3 explains the incomplete award for subcontracting work but does not account for possible increased costs due to oversight responsibilities of the school business administrator.

The last form decision logic table is the mixed entry table. Here various conditions are balanced against various states of nature. The following table deals with a set of decisions that personnel need to make regarding district funding of professional development trips. The set of conditions includes cost, and whether the trip should be related to individual job goals. The states of nature consist of three circumstances under which a staff member might attend such a function: as a willing participant, as an attendee without the responsibilities, or as a unwilling participant ordered to attend by the district. The possible actions include: approval of the trip, rejection of the trip, or partial payment for the trip to a limit specified in the policy. The various states of nature, or types of requests for professional development travel money and the resulting conditions that the school business administrator might use to render the decision are shown in Table 7:4.

Table 7:4 Professional Development Travel

	States of Nature											
	Participant				Attendee				District			
	1	2	3	4	5	6	7	8	9	10	11	12
Conditions												
Job Target Related	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Cost >$300	Y	Y			Y	Y			Y	Y		
Cost <$300			Y	Y			Y	Y			Y	Y
Actions												
Approval	X		X						X	X	X	X
Rejection				X		X	X	X				
Incomplete Payment*		X			X							

*Payment to a limit of 60% of the total cost.

Mathematical Techniques

School patrons, school board members, staff and the community at large are all demanding the best from each of their institutions, and the schools are no exception. Although sound intuitive reasoning may still prevail in certain decision situations, the public is demanding solutions that ensure *optimum* use of resources. School district personnel often must defend their decisions with hard data.

Mathematical techniques are used with increasing frequency by school business administrators to provide this kind of data. Such techniques attempt to quantify various aspects of the problem and then solve for the optimal solution. This is markedly different from satisfying or selecting the first best solution. The use of these techniques permits the application of some criteria of effectiveness and efficiency which permits either the maximization of return or the minimization of cost, subject to various external or internal constraints.

Again it should be stressed that solutions derived from the use of mathematical techniques are not absolute nor do they guarantee success. The school business administrator uses these techniques as "tools" to generate information which will increase the likelihood of effective and efficient decisions. Optimal, feasible solutions notwithstanding, they still need to be examined in light of the specifics of the local situation, including the goals and objectives of the district.

Linear Programming

One of the major concerns today for school business administrators is that of resource allocation. The goal is to allocate resources in such a manner as to maximize opportunities and/or minimize costs. The school business administrator is concerned with getting the most out of increasingly scarce resources. Resource allocation must be carried out within the context of specific district-wide, school or program goals and legal and fiscal constraints under which the district, school or program operates. This is a problem which involves linear programming.

Linear programming calls for the school business administrator to define in a linear fashion: 1) the various aspects of a problem (objective); 2) their relation to each other; and 3) the constraints under which they must operate. Some basic rules must be observed for the proper use of this technique.

First, each linear program problem must have something to be optimized, and this must be expressed as a linear equation. A linear equation provides for the conditions or variables under which the problem may be solved. This is called the *Objective Function* and has as its major role the delineation of a specific end result that the school business administrator has in mind. For example, if we wished to maximize achievement on the part of students, we might write the equation as follows:

Maximize Z Achievement

This would be the objective function and the desired goal of the school business administrator. It should be pointed out that the objective function now contains the letter "Z." Once the objective is established, it is common practice in linear programming to use this letter to denote the objective rather than maintaining verbiage.

Second, each linear programming problem must contain a set of variables that are part of the optimum solution. In the example above, the variables which might affect the solution to the student achievement problem are: time on task, resources and allocated instructional time. These variables must also be part of the objective function as well as be able to be expressed as linear equations. Thus, our objective function now includes:

Max Achievement = time on task (x1) + resources (x2) + allocated time (x3).

Third, the linear programming problem must also contain the constraints that limit the optimal solution. These are attached to the variables and are part of the entire program. These constraints are the limits beyond which the school business administrator may not go. They may be either less than or equal to (< =), greater than or equal to (> =), or equal to (=). The constraints are associated with the variables and are on the right side of the equations. These are the conditions to which the maximization of achievement are *Subject To.*

Finally, the linear programming problem must account for *Non-negativity* of the variables. As we can have no less than 0 input of each of the variables, we must account for these. Typically this non-negativity function is written as a separate statement, with the variables being either < = , > = , or = to 0.

Our full linear programming problem for the maximization of achievement would look like the following and includes the use of the universal letter Z to denote the objective function.

$$\begin{aligned} &\text{Max } Z \text{ (Achievement)} = X1 + X2 + X3 \\ &\text{Subject to:} \\ &\quad X1 && > = 3 \\ &\quad\; X2 && < = 110 \\ &\quad\;\; X3 && < = 6 \\ &\quad\;\; x1, x2, x3 && > = 0 \end{aligned}$$

What we have said in the above problem is that we wish to maximize achievement given the three *decision* variables of time on task (X1), resources (X2), and allocated instructional time (X3). We have specified the constraints as: three hours of time on the task per day, $110 per day per child for academic instruction, and six hours each day of allocated time for school learning. There can be a mixture of greater than, less than, or equal to in any of the equations, but the school business administrator is cautioned to avoid an unbounded solution or infeasible solution.

With the problem set in linear terms, the school business administrator is in a position to solve for the optimal feasible solution. Since there are a variety of solutions, many of which may be feasible, we are concerned with the *optimal* feasible solution. Computer programs for microcomputers overcome the mathematical complexities easily and quickly and generate a readily recognizable optimal feasible solution. The difficult tasks are related to the establishment of the problem, the teasing out of the objective function, the variables, the constraints, and the coefficients associated with each of the variables.

Applying Linear Programming—An Example

The school lunch program, which is typically a major concern of school business administrators in terms of quality and costs, will be used as an example for examining the applications of the linear programming technique in school decision making.

A school business administrator has been approached by the representatives of the high school student council with a proposal to increase the lunch fare to include not only the typical class A lunch, but also a salad bar and an à la carte lunch. The representatives have gathered information from the student body which numbers 1,000 and found that students are likely to participate in such a program. This is gratifying as the current lunch count for the high school is 500 class A lunches, and staff is not being utilized to its fullest.

The school business administrator has asked for time to investigate the problem by testing different types of lunches and pricing/cost structures to determine the menu which will produce and maximize returns. Using the linear programming technique, the school business administrator determines that the *Objective Function* is to maximize total return. The three *Decision Variables* are the three types of lunches—class A, salad bar and á la carte.

An estimate of the number of lunches that should not be exceeded in each of these categories was determined and these become the constraints of the problem (the right hand side of the problem). Last, the costs associated with each of the lunch types is determined to be $.95 for class A, $.90 for salad bar and $.98 for á la carte. These costs are part of the objective function but are balanced with the pricing structure of $1.10, $.95 and $1.15 for each of the lunches respectively. These latter figures become the coefficients in the constraints. We can now write the linear programming problem as follows.

$$\text{Min } Z = .95x1 + .9x2 + .98x3$$

Subject to:

$$\begin{array}{ll} 1.10x1 & > \, = 400 \\ \quad .95x2 & > \, = 100 \\ \qquad 1.15x3 & > \, = 200 \\ \qquad\quad x1, x2, x3 & > \, = 0 \end{array}$$

The Computer in Solving the Problem. After the standard form of the problem is established, the optimal solution can be determined with the help of a computer. The particular program, and succeeding computer programs, were adapted for a TRS-80 from Bui's work.[9] In using the program, the school business administrator must answer the questions as presented, hence the need for a complete understanding of the problem before attempting to solve it on the computer. Tables 7:5-7:10 simulate the computer response.

Table 7:5 Entry Data

Linear Programming

```
Economic Function:
Maximize Or Minimize (max/min) ? Max
Number Of Decision Variables ? 3

Number Of Constraints
(Excluding Nonnegativity Constraints):
Less Than Or Equal To ? 3
Greater Than Or Equal To ? 0
Equal ? 0

Definition Of Variable Indices:

Decision Variable 1 = X(1)
Decision Variable 2 = X(2)
Decision Variable 3 = X(3)

Press The -Space Bar- To Continue . . .

Slack Variables(s) Of Less-Than-Or-Equal-To Constraints:
Constraint 1 = X(4)
Constraint 2 = X(5)
Constraint 3 = X(6)
Coefficients Of The Objective Function:
Coeff. Of Decision Variable 1 ? .95
Coeff. Of Decision Variable 2 ? .9
Coeff. Of Decision Variable 3 ? .98

Value Of The Right Side
  Of Constraint 1 ? 400
Value Of The Right Side
  Of Constraint 2 ? 100
Value Of The Right Side
  Of Constraint 3 ? 200
```

Table 7:6 Entry Data

```
Constraint Coefficients:
Coefficient Of Constraint # 1
—Decision Variable 1 ? 1.10
—Decision Variable 2 ? 0
—Decision Variable 3 ? 0
Coefficient Of Constraint # 2
—Decision Variable 1 ? 0
—Decision Variable 2 ? .9
—Decision Variable 3 ? 0
Coefficient Of Constraint # 3
—Decision Variable 1 ? 0
—Decision Variable 2 ? 0
—Decision Variable 3 ? 1.15
```

Iteration 0

```
BASIC VARIABLES   VALUE
      X(4)         400
      X(5)         100
      X(6)         200

VARIABLES OF THE SIMPLEX TABLEAU
((4), X(5), X(6), X(1), X(2), X(3),
PUSH THE -SPACE BAR- TO CONTINUE

MATRIX OF COEFFICIENT A(I,J):
    1     0     0     1.1     0      0
    0     1     0     0        .9    0
    0     0     1     0       0      1.15

MARGINAL PROFIT COEFFICIENTS Z(J)-C(J):
    0     0     0      .95     .9     .98

ECONOMIC FUNCTION Z = 0

CONTINUE (Y = YES, N = NO) ? Y
```

Table 7:7 Iteration #1

Iteration 1

```
BASIC VARIABLES   VALUE
      X(4)        400
      X(5)        100
      X(3)        173.913

VARIABLES OF THE SIMPLEX TABLEAU
X(4), X(5), X(6), X(1), X(2), X(3),

PUSH THE -SPACE BAR- TO CONTINUE

MATRIX OF COEFFICIENT A(I,J):
    1     0     0        1.1     0      0
    0     1     0        0        .9    0
    0     0      .87     0       0      1

MARGINAL PROFIT COEFFICIENTS Z(J)-C(J):
    0     0    -.85      .95     .9     0

ECONOMIC FUNCTION Z = -170.435

CONTINUE (Y = YES, N = NO) ? Y
```

Table 7:8 Iteration #2

Iteration 2

```
BASIC VARIABLES   VALUE
      X(1)        363.636
      X(5)        100
      X(3)        173.913

VARIABLES OF THE SIMPLEX TABLEAU
X(4), X(5), X(6), X(1), X(2), X(3),
Push The -Space Bar- To Continue . . .

Matrix Of Coefficient A(I,J):
     .91   0    0     1    0    0
    0      1    0     0    .9   0
    0      0   .87    0    0    1

Marginal Profit Coefficients Z(J)-C(J):
   -.86    0   -.85   0    .9   0

Economic Function Z = -515.889

Continue (Y = Yes, N = No) ? Y
```

Table 7:9 Iteration #3

```
Iteration 3

Basic Variables     Value
      X(1)          363.636
      X(2)          111.111
      X(3)          173.913

Variables Of The Simplex Tableau
X(4), X(5), X(6), X(1), X(2), X(3),

Push The -Space Bar- To Continue . . .

Matrix Of Coefficient A(I,J):
     .91    0        0      1    0    0
    0       1.11     0      0    1    0
    0       0       .87     0    0    1

Marginal Profit Coefficients Z(J)-C(J):
   -.86    -1      -.85     0    0    0

Economic Function Z = -615.889

Continue (Y = Yes, N = No) ? Y
```

Table 7:10 Final Tableau

```
              Decision Variable                    Value
                   X(1) =                         363.636
                   X(2) =                         111.111
                   X(3) =                         173.913

Note: All Variables Not Shown In This Table Have Values Of Zero.
                      Maximum Z = 615.889
*** Optimal Solution Found ***
*** After 4 Iterations ***
Push The -Space Bar- To See The Optimal Solution . . .
```

When using this program the school business administrator must assign only those items that have been outlined in the problem stated. Extraneous variables associated with linear programming such as slack, surplus and artificial variables are automatically accounted for by the computer program. The *slack variables*, as needed within the example, are variables added to the left hand side of the less than or equal to constraint equations to permit the variable to become an equality. The *surplus variables* are those that are subtracted from the left hand side of the equation to permit the greater than or equal to constraint to become an equality. *Artificial variables* are those that have no meaning in the problem but enable a basic feasible solution to be rendered. A slack variable is similar to the surplus variable but comes into existence where less than or equal to variables are part of the problem.

As may be seen by the optimal results produced by the program, the maximum Z is $615.889 per day return and the additional information provided by the program permits the school business administrator to establish optimum number of lunch types to be produced. It should be obvious that if costs could be reduced, prices increased and number of lunches increased, then a better allocation of resources would be provided with a further maximization of returns.

Although not an elaborate problem, the various parts found within the example demonstrate the degree to which the linear programming problem solving technique can be used. Further, the example demonstrates the efficiency with which information can be produced to enhance the business administrator's decision-making power.

Decision Making Under Risk

Whereas linear programming provides the school business administrator with a means to resolve problems, the emphasis on management decisions in the future will be to resolve problems in times of uncertainty. Every school district faces social, political and economic conditions of uncertainty. Strategic management techniques can help school managers meet the demands of the constituents by forecasting problems before they occur and planning for the risks and uncertainties.

Risk is an important consideration in decision-making process. There are basically two types of management styles with regard to risk—risk avoiders and risk takers. Risk avoiders are most typically found in education given its relatively stable and predictable political and economic environment. Evidence, however, is building that risk is becoming a way of life for the school environment as well and school business administrators need to know how to deal with it.

The risk taker is not an individual who takes risks without considering the consequences. While it may appear that the risk taker is one who blindly trusts that things will work out for the best, in reality the risk taker spends a great deal of time trying to reduce the risk involved in decision making. This is accomplished through the use of probability. Based on intuitive judgment or past experience the risk taker assigns various levels of probability to the alternatives facing the organization, and then proceeds to use these probabilities to reduce risk in selecting the optimal decision for the organization.

In examining the various alternatives, the school business administrator must consider the consequences of selecting a particular course of action and the alternatives that affect that choice. In the area of uncertainty in decision making, the use of a sequential decision-making process is a major part of the decision theory concept. The use of this process provides for a step-by-step analysis of the alternatives, with attendant probabilities and costs, and provides a model for the evaluation of risks prior to expending resources. Such an approach provides for a systematic analysis of the problem including all variables that affect the outcome. The various alternatives, costs and probabilities associated with the choices are put into a mathematical form. Much as with other decision-making models, data are collected on the relative frequency and strength of the various alternatives, and the model is examined frequently with changed input until the optimal solution is found.

There are two types of analytical procedures in accounting for risk and uncertainty in decision making. The first, or *Monte Carlo* technique is used in situations where there is a past history of the probability distribution which can generate events to test alternatives. The second technique, known as *Decision Trees*, is more appropriate when no history of past occurrence is available on which to base probabilities. This technique calls on the school business administrator to use formal intuitive processes to estimate the probabilities associated with the occurrences of various alternatives that affect the choice of the optimal decision.

Decision Tree Approach

In using the decision tree approach, the school business administrator analyzes the individual alternatives in relation to the decision alternatives. The following steps are involved in the process:

1. The school business administrator lists all alternative decision possibilities for the resolution of the problem.
2. The school business administrator determines all alternative events (states of nature) that might result from the selection of all the alternatives.
3. The school business administrator reviews the events and assigns the best estimated probability to each event. The estimated probability denotes the probable occurrence of the events and focuses attention on the impact of that alternative event on the final and total decision.
4. The school business administrator outlines all outcomes and assigns probabilities to all the possible outcomes.
5. The school business administrator evaluates the consequence of each alternative according to criteria established. Typically this is done by evaluation based on expected monetary value (or maximum return on the use of resources) or expected opportunity loss (the cost of not making the decision).
6. The school business administrator then returns to the initial decision point(s) and evaluates these by weighing each consequence of the various courses of action by the probability estimates assigned to the alternatives.

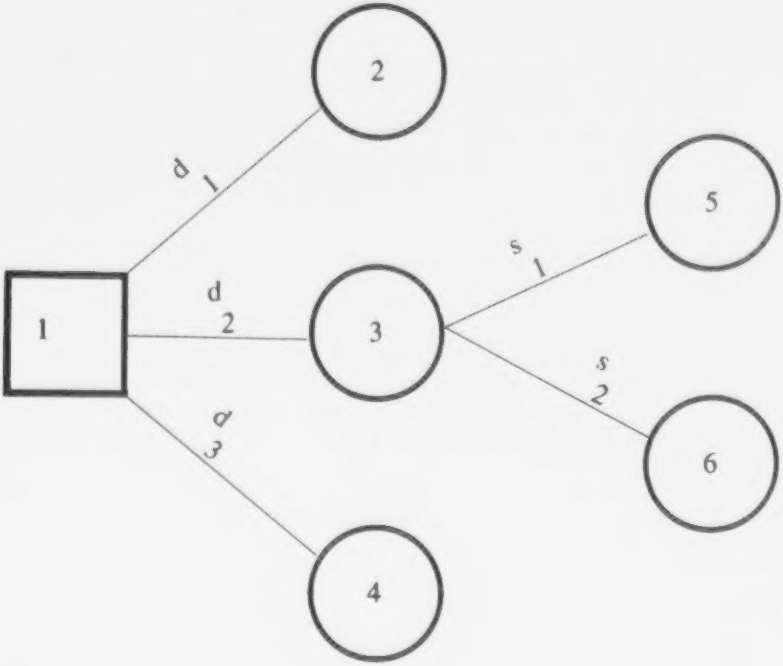
In building the decision tree, the school business administrator is concerned with the decision points (called "nodes" represented by squares) where the decisions are to be made, and alternatives (denoted as "branches" represented by lines among the different points in the tree). The school business administrator starts at the nodes and follows the branches until an examination has been completed for all possible alternatives in the various states of nature. Where a branch leaves the decision node, it is called a decision branch and carries no probability. When the branch leaves a state of nature or alternative condition node (indicated by circles), the branch is called a state of nature branch. All nodes and branches are numbered consecutively beginning with the initial decision node. Decision branches are denoted as "d," and state of nature branches are labelled "s," with appropriate subscripts to keep the various branches identifiable.

Figure 7:1 reflects the use of nodes and branches. Decision point node #1 is the final decision in this example. Branches d1, d2, and d3 are the possible alternatives that the school business administrator faces. Nodes 2, 3, and 4 are states of nature nodes (as denoted by the circle) and the branches s1 and s2 identify the various outcomes from that state of nature.

Once the decision tree has been drawn, the school business administrator enters the appropriate information pertinent to each branch—costs and probabilities—and computes the gain or loss. The final task is to select one decision node based on the probability estimates that provides the least cost or the greatest gain. This gain or loss is associated with the expected monetary value (EMV). To obtain this value the EMV for each alternative must be computed and entered allowing the school business administrator the widest range of choices. The EMV is the sum of the weighted payoffs for each alternative. The weight in this case is the probability estimate assigned by the individual for each of the various states of nature.

Application of the Decision Tree Approach—An Example. To demonstrate the use of the Decision Tree let us say, for example, that a school district has received a grant for $31,000 for the sole purpose of purchasing microcomputers for the high school. An initial review of the systems available reveals three systems might be used, but the benefactor has stipulated that: 1) one system alone must be purchased, and 2) that the district receive maximum use of the system selected. Included in the decision process is the cost of initial in-service training of the staff at a cost of $3,000. The alternative to this cost is a bill for $2,000 for traditional in-service training. The in-service needs to be addressed prior to the use of the microcomputer systems and the outcome of the program affects the use of the system selected. A major consideration is the number of machines that might be purchased for the money. System A yields sixteen machines but has limited software.

Figure 7:1 Decision Tree—General Form



System B yields twelve machines and has software applicable to some, but not all academic programs. System C yields ten machines and has some software currently available, with more being developed. The school business administrator conducts a cursory survey of the staff at the high school and finds that the microcomputers would be used approximately twenty-five periods per week, if there were high acceptance of the concept, and sixteen periods per week, if there were low acceptance. These figures were then applied to the total cost ($31,000) and yielded a high acceptance per unit cost of $1,240 for each of the machines and a low acceptance per unit costs of $1,937. Using this information, the school business administrator constructed Table 7:11 including costs and estimated probabilities. See Figure 7:2 for the decision tree diagram.

Table 7:11 Decision Alternatives

d1	In-service for microcomputers	$3000
d2	General in-service program	$2000
d3	Micro system #1	$31000
d4	Micro system #2	$31000
d5	Micro system #3	$31000
d6	Negative in-service results	$3000

States of Nature		Cost	Probability
s1	Positive in-service	$0000	.64
s2	Negative in-service	$0000	.34
s3	High use of System #1	$1240	.55
s4	Low use of System #1	$1937	.45
s5	High use of System #2	$1240	.6
s6	Low use of System #2	$1937	.4
s7	High use of System #3	$1240	.7
s8	Low use of System #3	$1937	.3

In the diagram we have denoted costs with a minus sign, as we are looking for the expected monetary value (EMV) for the least cost. In resolving the issues and examining the alternatives, the school business administrator begins on the right hand side of the tree and computes the EMV for each alternative. This is done by multiplying the cost factor by the estimated probability. Adding the sums produced yields the EMV for each level and provides the school business administrator with the data needed to select the optimal alternative or the best decision.

While this example, and similar small problems, can be calculated by hand, the use of microcomputer programs for decision tree analysis facilitates the process and is essential for larger problems with many alternatives and states of nature. Using the decision tree model computer program and the data given, a printout of the results of this decision tree appears in Tables 7:12-15.

Table 7:12 Decision Tree Entry Format

```
Decision Tree

Adjustment For Present Value
Yes (1) Or No (0) ? 0

Number Of Branches ? 14

Branch #1:

Number Of 'From' Node ? 1
Number Of 'To' Node ? 2
Probability ? 0
Estimated Outcome (In $) ? -3000.
```

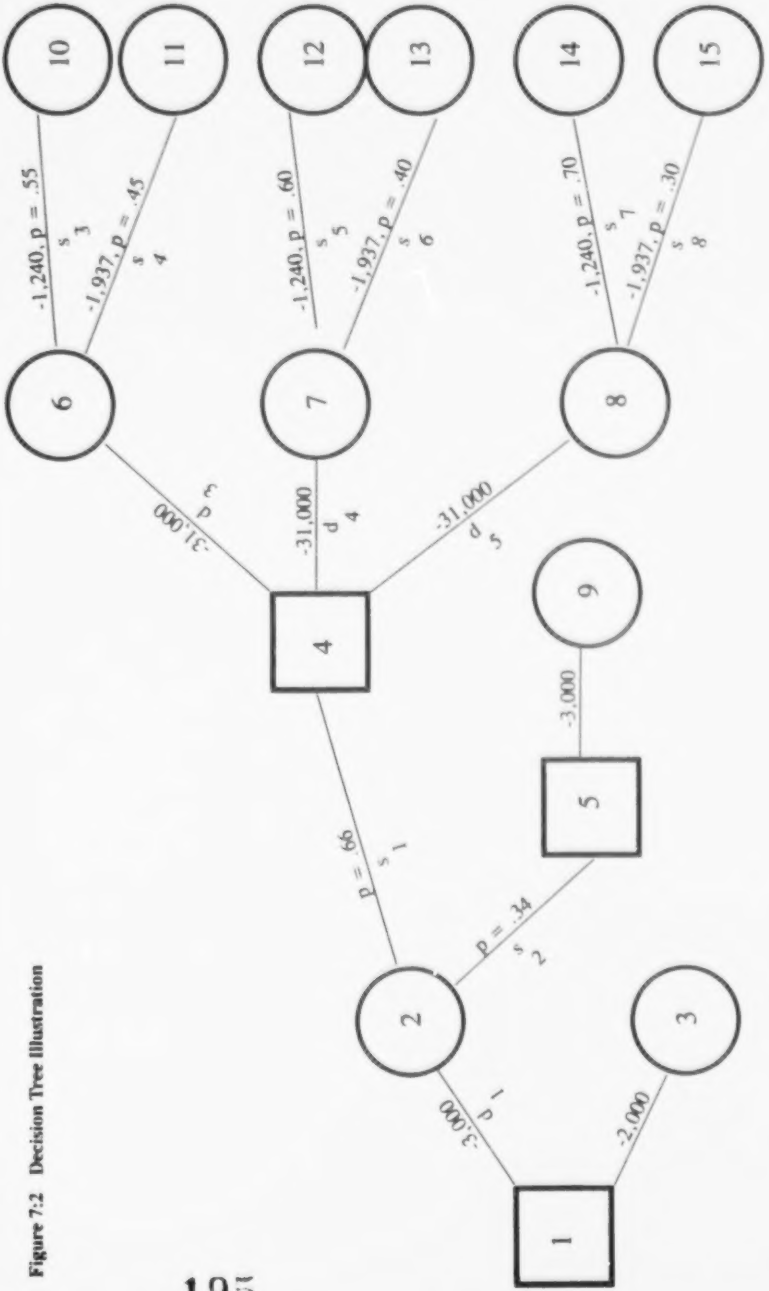

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
-3,000 d1
-2,000
p = .66 s1
p = .34 s2
-31,000 d3
-31,000 d4
-31,000 d5
-3,000
-1,240, p = .55 s3
-1,937, p = .45 s4
-1,240, p = .60 s5
-1,937, p = .40 s6
-1,240, p = .70 s7
-1,937, p = .30 s8

Figure 7:2 Decision Tree Illustration

Table 7:13 Decision Tree Sorted Data

```
Sorted Decision Tree Table
SOURCE          DEST          PROB          PERIODS          DOLLARS
1               2             0             0                -3000
1               3             0             0                -2000
2               4             .66           0                0
2               5             .34           0                0
4               6             0             0                -31000
4               7             0             0                -31000
4               8             0             0                -31000
5               9             0             0                -3000
6               10            .55           0                -1240
6               11            .45           0                -1937
7               12            .6            0                -1240
7               13            .4            0                -1937
8               14            .7            0                -1240
8               15            .3            0                -1937
CONTINUE ? Y.
```

Table 7:14 Evaluation of Sorted Data

```
Evaluation of the Decision Tree
SOURCE          DEST          PROB          PERIODS          DOLLARS
1               2             DECISION      0                -3000
1               3             DECISION      0                -2000
2               4             .66           0                0
2               5             .34           0                0
4               6             DECISION      0                -32553.7
4               7             DECISION      0                -32518.8
4               8             DECISION      0                -32449.1
5               9             DECISION      0                -3000
6               10            .55           0                -682
6               11            .45           0                -871.65
7               12            .6            0                -744
7               13            .4            0                -774.8
8               14            .7            0                -868
8               15            .3            0                -581.1
CONTINUE ? Y
```

Table 7:15 Optimal Decision

```
Optimal Decisions Retained

SOURCE                    DEST                    ESTIMATED RESULTS
   1                        3                     $-2000
   4                        8                     $-32449.1
   5                        9                     $-3000
NOTE: THIS TABLE SHOWS THE BEST DECISION FOR EACH LEVEL OF THE DECISION TREE.
```

As indicated in Table 7:12, the information is provided by entering data as requested in the format provided. Table 7:13 indicates the information pertinent to the problem in a manner that permits the school business administrator to check for errors of entry. Table 7:14 reports the computed EMV for each level based on the cost factor and the probability estimates provided by the school business administrator. Table 7:15 provides the school business administrator with a record of the optimal decisions to be considered. In the example, decision nodes 1-3 and 5-9 are considered, as they represent least cost at specific points within the program. If the school business administrator chose to follow the general in-service program route, then the cost would have been only $2,000 and not the $3,000 as indicated in decision 1-2. Decision 5-9 indicates to the school business administrator that if a negative response to the microcomputer in-service program warranted discontinuance of the microcomputer program, the cost would be the $3,000. Of special interest is decision 4-8. Although it represents the least number of machines purchased based on the estimated probability of high and low acceptance and use of the microcomputer systems under consideration, this decision branch, with the attendant states of nature and perceived outcomes, yielded the best choice or return on the investment.

While the example provided is small, it demonstrates the use of microcomputer programs for decision trees as a powerful technique in the school business administrator's arsenal of combating risk and uncertainty in the decision-making process. The data for decisions are based on quantification of information, and the use of a quantitative technique provides only data which are applicable to enhance the decision-making process. It is still the responsibility of the school business administrator to make the final choice as to the decision from the various alternatives. This choice needs to be made in light of the goals and objectives that the district has established.

Inventory Control Using a Deterministic Model

While curricular and non-curricular programs can be eliminated, personnel reduced-in-force and major savings instituted through drastic measures, the fulfillment of the district's teaching-learning objectives must not be damaged. It is not always the costly budget items that reduce the effective use of the district's revenues. The district can lose operating effectiveness through the cumulative effect of seemingly minor expenses that total sizable sums. Thus, a means must be found to contain the smaller cost items that reduce the effectiveness and efficiency of the business function. Whereas we have examined complex issues and techniques in quantitative decision making, the following procedure will permit the school business administrator to gain control of costs and, at the same time, ensure that adequate materials and supplies are on hand to fulfill the objectives of the district.

There is both a need in the fiscal management of the district to provide logistical support for programs and personnel and to reduce costs. The district management can control costs while still providing for the completion of tasks by instructional and support personnel within the district, through judicious and rational control of inventories.

Fear of running short is inherent to all materials and supply handling. Nevertheless, a greater need is to contain costs while guarding against "stockouts" that would detract from the effectiveness of school operation. The very nature of school districts, as stable organizations with relatively constant demands for supplies and materials, permits the use of the inventory control/management technique called *Economic Order Quantity (EOQ)*. EOQ is a model that assists the school business administrator in determining the reorder policy for the organization while at the same time maintaining the lowest cost to the organization. It is a "deterministic model," as it is based on the past history of the demand for the item by the district. The inventory technique seeks to: 1) reduce costs, 2) have the item available for use, and 3) optimize the meeting of objectives by the organization. The questions that inventory control seeks to answer are: 1) how much to order? 2) when to order? and 3) how to reduce costs?

There are two separate sets of costs involved within the inventory control process—*ordering costs* and *holding costs*. Ordering costs involve all the costs associated with placing one order of the item, regardless of the size of the order. Included in ordering costs are secretarial time, computer time, stationary, stamps, bidding process and time for approval. Holding costs include such items as cost of storage facilities, labor costs for redistribution, utilities, insurance, general administrative costs of maintaining the item on the inventory and keeping track of the unused portion of the item, and the interest lost to the organization by using the funds rather than leaving them in an interest-bearing account.

The first step in the process of using EOQ is for the school business administrator to determine the demand for the item within a time frame useful for the organization. For school district management accustomed to bidding items on a once-a-year basis, the yearly demand is most suitable. Once the demand for the item is established, the school business administrator can begin to determine the costs involved in securing and holding the item.

The ordering cost is relatively easy to establish. As indicated, it is the total cost of all the aspects contained in ordering the item. The ordering cost is a function of the number of orders placed within the given time period, and not the quantity of the item ordered. Once the ordering cost is determined, it is entered into the following formula used in determining the annual ordering cost for the item.

$$(D/Q)\ Co$$

where

D = demand for the item over the time period

Q = quantity ordered per order period

Co = cost of each order.

The holding costs, complete with the entire range of factors that make up the costs, is typically figured using a percentage of the price of the item on a per unit basis. Once the holding cost per item has been determined, the school business administrator enters the cost into the following formula to calculate the annual holding cost for the entire time unit. The formula for annual holding costs is:

$$\tfrac{1}{2}\ QCh$$

where

Q = the quantity ordered for the order period

Ch = the holding cost (percent of the unit price).

The formula uses one-half Q as a base for determining holding costs. Since the inventory is drawn up on during each time period, whether one year or one month, the costs of holding the items in stock for the first half of the period are offset by the costs of holding the stock for the second half of the time period.

With these two costs determined, the next step is to calculate the total annual cost for the inventory. The formula for this is:

$$TC = \tfrac{1}{2}\ QCh + (D/Q)\ Co$$

This formula represents a combination of the ordering cost and holding cost formulas.

Although the school business administrator may know the demand (D) for the item for the time period, and the cost (both ordering and holding), missing in the formula is the quantity represented by the letter Q. Thus, the school business administrator constructs a table showing ranges of quantities which can reasonably be ordered and the resultant calculations of annual holding costs, ordering costs and total costs. This is a trial-and-error method of finding the lowest total cost (TC) which still meets the needs of the organization. Once the table has been constructed with inspection of the total costs, the school business administrator can select the optimum quantity to order.

There is, however, a second means by which to determine the optimum minimum quantity to be ordered. By using the following formula, the school business administrator can determine the minimum order that will optimize the cost. The formula is:

$$Q = \sqrt{\frac{2DCo}{Ch}}$$

where

D = demand for the item during the time period
Co = ordering costs
Ch = holding costs

The quantity rendered by the formula consistent with the costs involved is the optimum quantity.

As with all management science techniques, the data generated should serve as merely a guide for the school business administrator in the decision-making process. It is the amount of inventory that should be ordered to minimize costs.

The school business administrator still needs to know the *reorder point* and the *cycle for ordering* the items. The reorder point is the level that the school business administrator must not go below prior to reordering in order to avoid a stockout and disruption of services. This reorder point is determined using the following formula:

$$r = (d)(m)$$

where
r = the reorder point
d = the daily demand for the item
m = the lead time for processing and receiving the order from the supplier

The other item needed for effective and efficient control over the inventory of the district is the cycle of reordering which can be found by using the following formula:

$$T = \frac{365Q}{D}$$

where

Q = quantity ordered per time period
D = total demand for the item

The yield for this formula is the number of days between orders.

Applying the Deterministic Model to Inventory Control—An Example

The following example will demonstrate the use of the formulas presented above to the decision-making process related to inventory. A school district is faced with the need to be more effective and efficient within the management of the district. School board members are demanding closer control of all cost areas. While they have examined program curtailment and reduction-in-force of personnel, they are also scrutinizing the excess costs of the district and are seeking better control in all areas of district fiscal operations. Board members who have backgrounds in business operations have asked for a better means of inventory control. They are concerned with the large amount of paper that is purchased on bid on a once-a-year basis and then held at various locations within the district. More than one location is used due to the lack of a central storage facility, thus incurring additional holding costs. They have asked the school business administrator to examine this issue and render a report as to a purchase policy to insure maximum use of the item and minimization of costs.

The school business administrator has surveyed school and central office personnel for paper needs on a yearly basis. There has been an examination of the past orders of the district and there is consistency in both use and ordering. The total demand for the paper is set at 7,000 reams per year (or 3.5 million sheets of paper per year). The cost of a ream of paper on the bidding process has stabilized at $2.65 per ream. The cost of a single order, regardless of the quantity of paper ordered, has been determined to be $9.14 per order. After a survey of the storage facilities, the holding costs, which include inventory control and the cost of redistributing paper to individual schools, have been set at 13 percent of the per unit price, or $.344 per ream. The school business administrator determines that the quantity schedule for ordering might be as follows: 7,000, 6,000, 5,000, 4,000, 3,000, 2,000, 1,000, 500, 250. Using the formulas as set forth, the school business administrator constructs Table 7:16 to demonstrate the costs for each order size.

Table 7:16 Order Quantity And Costs

Order Quantity	Annual Holding Costs	Annual Ordering Cost	Annual Total Cost
7000	$2408	$ 9.14	$2417.14
6000	2064	10.66	2074.66
5000	1720	12.79	1732.79
4000	1376	15.99	1391.99
3000	1032	21.32	1053.32
2000	688	31.99	719.99
1000	344	63.98	407.98
500	172	127.96	299.96
250	86	255.92	341.92

The dollar amounts are found by substituting the figures given in the Total Cost formula. For example,

$TC = .344\,(7000) + 7000/7000\,(9.14)$

which yields holding costs of $2408, ordering costs of $9.14, for a Total Cost of $2417.14 for a one time order and holding of 7000 reams of paper.

The costs incurred as listed are only holding and ordering costs and do not include the actual cost of the paper at $2.65 per ream. This cost of the item must be considered and the total cost for each level of quantity order completed. These costs do not affect the EOQ model for optimization of the order and minimization of the costs, since the overall cost of the item will remain constant throughout the entire time period.

By inspection, the school business administrator can see that to provide the continuous flow of paper for the district at the lowest cost, the economic order quantity (Q) is 500 reams per order. The use of this order quantity would yield a significant reduction in costs of 87 percent. However, this is merely a rough approximation of the needs and cost minimization process. What would be the optimum order quantity? Using the formula for

$$Q = \sqrt{\frac{2(7000)\,(9.14)}{.344}}$$

optimization a more accurate figure for order quantity and costs is determined. Six hundred and nine yield the following costs:

Annual holding costs = $209.49

Annual ordering costs = $105.07

Annual Total Costs = $314.56.

This optimization yields a reduction in costs of 86 percent as compared to the current practice of one order of 7,000 reams per year.

The reorder point, using the formula given, is

$r = (9589)\,(5)$ or 95.89 reams of paper.

The reorder cycle, using the formula given, is

$T = 365(609)/7000$ or 31.75 days between orders with a total number of orders set at 11.496.

Although the calculations can be completed by hand, the school business administrator can quickly calculate the same information easily and efficiently with a computer program. Moreover, the program is able to incorporate the effects of limited storage capacity on the quantity ordered and the associated costs. The program has been completed twice, once with no storage limitations (see Table 7:17) and once with a limitation of 500 reams (see Table 7:18) to show the differential in costs and reorder cycle.

Table 7:17 EOQ With Optimization

```
Optimal Inventory Management

Annual Demand For Item (In Units) ? 7000
Price: No Reduction (0), One Reduction (1), Two Reductions (2) ? 0
Unit Price Of Product ? 2.65
Cost Of One Order ? 9.14
Unit Holding Costs: (Percent Of Purchase Price) ? 13
Shortage Costs ? 0
Limited Inventory Capacity: Yes (1), No (0) ? 0.

Results Of The EOQ Model:
Optimal Order Quantity =    609 Units.
Unit Purchase Price    =  $      2.65.
Total Inventory Costs  =  $18760.
Total Inventory Costs  =  $18865.1
Orders Should Be Placed 11.5 Times Per Year.
```

Table 7:18 EOQ With Limited Storage Space

```
Optimal Inventory Management

Annual Demand For Item (In Units) ? 7000
Price: No Reduction (0), One Reduction (1), Two Reductions (2) ? 0
Unit Price Of Product ? 2.65
Cost Of One Order ? 9.14
Unit Holding Costs: (Percent Of Purchase Price) ? 13
Shortage Costs ? 0
Limited Inventory Capacity: Yes (1), No (0) ? 1
Maximum Capacity Of Inventory ? 500

Results of the EOQ Model:
Optimal Order Quantity =    609 Units.
Unit Purchase Price    =  $      2.65.
Total Holding Costs    =  $18760.
Total Inventory Costs  =  $18865.1
Orders Should Be Placed 11.5 Times Per Year.

Inventory Capacity Is Less Than Optimal
With Limited Inventory Capacity . . .

Results Of The EOQ Model:
Optimal Order Quantity =    500 Units.
Unit Purchase Price    =  $      2.65.
Total Holding Costs    =  $18764.1.
Total Inventory Costs  =  $18892.1
Orders Should Be Placed 14 Times Per Year.
Costs Due To Limited Capacity = $4.13
*** Optimal Quantity = Maximum Capacity
```

Multiple Criteria Decision Making

Up to this point we have concerned ourselves with optimization of resources based on single criteria or sets cf values. In reality, school districts operate in an environment which creates demands from a variety of stakeholders and attempts to meet the needs of many diverse individuals and groups. Where once the concept of finding the first solution that answers the question or solves the problem worked for school management personnel, the recurrent demands for effectiveness requires school administrative personnel to optimize their decisions and search for the single best alternative from the many that face them.

Today, the school administrator is afforded the opportunity to move from the reactive stance of traditional not-for-profit organizations to a stance of entrepreneurial management and adopt techniques that will permit the optimization of alternatives to problems.[10] Yet, in the optimization for cost effectiveness, the school business administrator must retain efficiency in operation. With efficiency as a goal, the administrator must be concerned with selecting the best alternative to meet organizational objectives, while at the same time maintain cost benefit. The move toward efficiency offers a plethora of alternatives which take into consideration the diverse goals and objectives of various groups that make up the environment of the school district—pupils, parents, community members, teachers and staff, and administrative and board personnel.

The administrator needs a means by which to reduce this diversity to a reasonable level to permit proactive decisions supportive of the district's programs. *Multi Criteria Decision Making (MCDM)* is a quantitative decision-making tool, which permits various groups to deal with qualitative issues of programmatic goals and objectives. This technique goes beyond the maximization of effectiveness or the minimization of costs. It also includes accounting for the subjective and objective judgments of individuals involved in the decision-making process using a weighted format. It is a particularly viable technique for decision making when faced with a variety of complex and conflicting issues and a significant number of alternatives that must be considerred. The MCDM process permits a uniform and consistent analysis of the various alternatives and analysis of the effect that the alternatives present to the decision-making situation. Useful at various levels of decision making, it fosters openness in the district's efforts to achieve long-term goals and objectives. For instance, use of the technique in the long-range planning process might well begin with each subgroup (teachers, parents, students and advisory committees of the board). It would then analyze each of the alternative goals and objectives and render a composite decision regarding the specific priority for the alternatives under consideration.

The process for completing the MCDM technique follows specific steps. Although it is a relatively simple technique from a mathematical standpoint, substantial effort is required in the reaching of consensus on the criteria, attributes, weights and values that are included within the process. The procedures are outlined as follows:

Step One. A decision needs to be rendered regarding the applicability of the problem to the MCDM techniques. As with any technique discussed, not all problems are amenable to the technique. Problems most suitable to the MCDM process are those that have a number of alternative choices that would permit the optimization of the goal or objective. Second, a problem is suitable for MCDM if there are a number of criteria that can be applied to the process for analyzing the choices and rendering a decision.

Step Two. The alternatives from which the final decision will be made must be selected. It is important that only those alternatives that are feasible and can be implemented be considered.

Step Three. The school business administrator lists the criteria on which the alternatives will be evaluated. The criteria are the specific values associated with each of the items. For example, if the alternatives were salary schedules for staff, criteria might include the dollar limit per step or the perceived effectiveness of the salary schedule in recruitment and retention of personnel.

Step Four. Within the process of establishing criteria, the school business administrator provides a listing of the attributes or measures that will be used to determine the value of each of the criteria for each alternative. For example, if one criteria were usefulness, the attribute might be the ease of operation for staff and students.

Step Five. The school business administrator ranks each of the alternatives based on the criteria provided given the attributes that have been established. These are then added together and the total divided by the number of criteria in order to arrive at an average value of each of the alternatives.

Step Six. To account for the subjective evaluation of each of the alternatives, a weight is assigned to the different criteria. This assignment of weight is separate from the ranking process described in step five. This step provides for the various groups to reach consensus on the value of each of the criteria and provides the district administrator with agreement across partisan lines as to the value each groups places on the criteria.

Step Seven. The final step in the MCDM process provides for a final ranking for each of the alternatives. This is accomplished by multiplying the ranking for each criteria with each alternative and summing the score. This yields a final ranking that provides data for the school business administrator to use in rendering the final decision on the choice of alternatives. In many instances there will be a change in the ranking for each of the alternatives due to the weights or values placed on each of the criteria. This is the portion of the MCDM process that permits the subjective value judgment of each individual group to become part of the process.

The MCDM process provides for the selection of the best alternative given the constraints and priorities of various groups within the district. Further, it permits the district management personnel to open the channels of communication with the various segments of the community and to involve them in the district's movement toward a proactive stance regarding education.

Applying MCDM—An Example

A school district is faced with a common problem—a number of vocal interest groups concerned the selection of materials designed to meet the educational goals and objectives of the district. The selection process must take into consideration the meet and confer agreement that the district made with staff involved with curriculum and instruction.

The district is faced with a relatively simple problem—that of selecting textbooks for reading at the elementary level. There are a number of reading series available, but the district is under increasing pressure to select a series that *best* meets criteria related to fulfilling the objectives of the reading program. Thus cost effectiveness is not the primary concern. The administration's challenge is how to incorporate the opinions of various interest groups (parents, staff and students) in order to maximize the reading performance of their students.

Table 7:19 shows the established criteria using the MCDM model.

Table 7:19 Criterion and Attributes

Criteria	*Attributes*
C1 — Usefulness	Level of meeting goals and objectives of the district
C2 — Readability	Score from Readability formula
C3 — Interest Level	Score of Interest formula
C4 — Cost of item	$ cost per unit
C5 — Inservice demands	$ cost for inservice

The criteria need to be established by all groups involved in the decision-making process, and the attributes understood so that proper ranking of the alternatives can be accomplished.

Next, as shown in Table 7:20, the various groups decide the value of the rankings for each of the alternatives based on each of the criteria.

Table 7:20 Value of Rankings

Usability and Cost for District	Value (points)
Outstanding/Low Cost	9 — 10 points
Above Average/Below Average Cost	7 — 8 points
Average/Average Cost	5 — 6 points
Below Average/Above Average Cost	3 — 4 points
Unusable/High Cost	1 — 2 points

Once the criteria, attributes and value for each criteria have been established, the school business administrator lists the ranking for each of the alternatives on each of the criteria. This is done in tabular form as follows:

Table 7:21 Decision Matrix I

	C1	C2	C3	C4	C5	Average
A1	10	6	8	7	3	6.8
A2	8	7	9	6	4	6.8
A3	7	9	6	6	3	6.2
A4	9	5	7	7	4	6.4

Although this table provides the school business administrator with a means to render a decision regarding alternatives one through four, the table does not consider the weight or value each of the criteria have within the decision-making process. Thus, a listing of the weighted values for each criteria is needed in order to produce a final ranking. These weights are as follows:

Table 7:22 Value of Weights for Final Ranking

Ranking	*Weight*
Extremely important	5
Very important	4
Important	3
Slightly important	2
Minimally important	1

Table 7:23 Decision Matrix II—Final Weighted Average Criterion

	C1	C2	C3	C4	C5	Weighted
Weight	(5)	(5)	(4)	(2)	(1)	Total
Alternative						
A1	50	30	32	14	3	129
A2	40	35	36	12	2	127
A3	35	45	24	12	3	119
A4	45	25	28	14	4	116

The school business administrator can use these weights in determining the final weighted value for each of the alternatives on each criteria and produce the final weighted total.

In the end it is still the school business administrator who must make the decision. Nevertheless, the MCDM process generated pertinent data, including opinions and judgments from important sectors of the school district, which not only facilitate the decision-making process, but also secure the implementation process.

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8

Management Information Systems in Educational Organizations

Frederick L. Dembowski

This chapter is intended to give the reader an overview of the uses of the computer in school business management. The focus is on the role the computer (particularly the microcomputer) plays in the management process, rather than on the computer technology itself (although a basic understanding of the components and terminology is helpful). The reason for this emphasis is that the computer industry is progressing so rapidly in both technological advances and applications that by the time a chapter on computer use is written and published, it may be obsolete.

This chapter will begin with a discussion of management information systems (MIS) to provide a general framework and then branch into discussions of specific computer topics. Many believe that an MIS is the computerization of clerical work. Others think it is an ultra-sophisticated computer system that will provide answers and decisions for complex problems to managers at the push of a few buttons. Both of these beliefs are misguided. The concept of MIS can be understood most readily by examining the three words management, information and systems separately.

Management Information Systems[1]

Management consists of the activities carried out by managers. They plan, organize and control the major activities of the organization and initiate actions. The practice of management consists of the artful application of scientific principles to problem solving in order to select courses of action that optimize the utilization of scarce resources in achieving the desired objective. Because decision making plays such a major role in all of the functions of management, the MIS becomes a facilitating system for developing decisions in planning, organizing, controlling and initiating courses of action. This yields the purpose of the MIS.

Information and Data

Information is often confused with data, but there is an important distinction between the two concepts. Data are facts and figures not used in a decision process. Files, records and reports not under immediate consideration are examples. Information, on the other hand, consists of classified and interpreted data used for decision making.

Data has its own life cycle which must be taken into account in the design, development and operation of an MIS. The manager needs to know how the data are generated (Where do they come from? What are the source documents?), what manipulation or processing of the data needs to be carried out (Is it in the form that is needed? Is it to be added to other data sets?), and do the data need to be transmitted to another site, stored or retrieved. The steps in the life cycle of data upon generation are as follows:

Storage. The "birth" of data is the result of some action that is either observed or recorded in the environment surrounding the organization or within the organization itself. Before data may be manipulated or utilized, they must first be recorded or stored in the human mind or in an electrical or mechanical device.

Conversion. Data are usually converted from storage to some more convenient form, such as documents, reports or computer input.

Transportation. Data are constantly being transported from source to storage to processing to user to storage, and so on.

Reproduction. Data are often not stored in a form that is readily interpretable. Storage on tape, cards, in files or on disks often must be reproduced in different form. Many more copies may be required than exist in storage. Backup data which are often required by law in case of loss of original data, is generally desirable.

Classification. Data are often accumulated at random and must be sorted to be useful. Even data that have been sorted and classified may be needed in a different form. This leads to data base management systems within the MIS.

Synthesis. Aggregation of many pieces of data to structure a meaningful whole or complete report is often required.

Manipulation. Quantitative data must often be operated upon by adding, subtracting and so on, to change their form or develop their meeting through formulas or equations. Statistical methods are often used to define the limits and parameters of the data sheet.

Utilization. After the data are put into a suitable form, they can be retrieved as information for the decision maker, when needed.

Evaluation. The value of data depends on their accuracy, reliability and time reference as well as on the needs of potential users. There is an economic aspect of the cost of storage versus the value of current data and future data that could be stored. Data files should be continually monitored to eliminate useless and low-priority data.

Destruction. Data records may be stored again or destroyed following their evaluation or use. Destruction of data records may occur on a purely routine basis following one-time use or in the review of old records. Destruction is, of course, the end of the life cycle of data.

While the development, design and operation of the MIS must take into account all of these processing steps, storage and retrieval require special attention.

Systems

A system is a set of two or more elements joined together to attain a common objective. A system may be further delimited into sub-systems which work more effectively together as one system, than if they were working separately. As will be described in a later section, a computer consists of many components working in harmony which is why it is often called a computer system.

Management information systems or MIS is the means for connecting the operating systems in an organization by the exchange of information. The computer is only one component in the MIS. The human element is another important component in the MIS. For example, the manager must take an active role in the design of the MIS as the principal user, and all the users of the MIS must be accustomed to accept the MIS and trained in its efficient use.

With the development of the concept of the MIS, three changes must also take place in well-managed organizations:

1. Management must become systems-oriented and more sophisticated in management techniques.

2. Information must be planned for and made available to managers as needed.

3. A system of information must be developed which ties planning and then control by managers to operational systems of implementation.

The management information system collects, analyzes, stores and displays data about such things as supplies, equipment and personnel in the organization to managerial decision makers at all levels of management. The MIS raises management skills from the level of intuitive guesswork to the level of systems information, sophisticated data processing and systems problem solving. Thus, it is a powerful method for aiding managers in solving problems and making decisions.

The overall job of a manager is to create within the organization the environment which will facilitate the accomplishment of its objectives. In doing this, the manager plans the work of the subordinates as well as his or her own activity, selects and trains the subordinates by staffing the operations, organizes the work and task relationships, directs the work and controls results by measuring performance against the plan. Many managers make the mistake of believing that an MIS can be designed and made operational without an adequate management system. Needless to say, one is dependent on the other. Without the firm foundation of a good management system, the MIS will not provide the manager with the information needed in the form, place and time that is needed in order to perform the job according to the specifications of the management system.

How does a computer fit into this scheme? As previously suggested, there are several prerequisites for a modern, effective computer based management information system. The first is the development of a management system of the organizational arrangements, the structure and procedures for adequate planning and control and the other management functions. Second, there must exist data and information about the organization's goals, resources, policies, operations, plans and performance against the plans. Third, in order to process these data, it is necessary to have appropriate equipment that will: a) provide the capability for rapid retrieval of stored data; b) process this information economically and at high speed; and c) enter information into the system, retrieve and display it. These three activities are performed by the computer and related hardware. A final prerequisite to an effective computer-based MIS is information management, an organization for designing, maintaining and managing the required systems and procedures.

This function is performed in part by software and in part by the management of the computer system.

A computerized information system is composed of five basic processes: 1) entering data into the system; 2) processing data (rearranging input data and processing files); 3) maintaining files and records; 4) developing procedures that tell what data are needed; when and where they are obtained; how they are used, as well as providing instructions for the processor to follow; and 5) preparing report output. These basic components form the basis of a computer-based MIS.

MIS and the Microcomputer

Since the introduction of the first commercially available microcomputer in 1978, microprocessor technology and related advances in other aspects of computer hardware have reduced the distinction between large "mainframe" computers and desktop microcomputers. As this chapter is being written, there are microcomputers with up to 100 megabytes of hard disk storage, and up to 5 megabytes of RAM. This capability which would have cost over $1 million in 1970, today costs approximately $10,000—well within the financial range of all school districts.

Hardware Components of a Microcomputer-Based MIS

A microcomputer system consists of three primary components: input devices, the Central Processing Unit and output devices. Each of these components, in turn, consist of many sub-components. At the heart of the entire system is the microprocessor itself. The microprocessor or "chip" is about the size of a thumbnail although slightly thicker. On the chips are etched a complex series of integrated circuits that are essentially nothing more than electronic switches. In each switch, the electricity is either "on" or "off." The entire microcomputer system operates by controlling the flow of electrical impulses through these switches in a prescribed manner.

Each small electrical impulse is called a bit. A bit is either a "0" signifying the presence of electrical energy, or a "1" signifying the absence. Four bits are called a byte. The microprocessor processes the bits and bytes of information in groups called words. Words usually consist of 8 bits, 16 bits or 32 bits, although some companies use different length words. The micros that handle only 8 bit words are called 8 bit machines. Most of the micros today are 8 bit, 16 bit and 32 bit micros.

Why different size words? A microprocessor that uses 16 bit words is not only twice as fast at processing information than the 8 bit machines, but also handles twice as much information. Evaluating a microprocessor is somewhat like evaluating a truck; you must determine both how fast it goes and how much it can carry in one load.

Regardless of the word size used by a micro, the coding arrangement of the bits into words is standardized. The vast majority of micros use the American Standard Code for Information Interchange, (ASCII), (pronounced "as-key"). The ASCII code consists of 256 combinations of bits, with each combination representing a unique symbol. For example, the arrangement of a 8 bits in "01000001" represents an "A" while "00111000" represents an "8." Each character on the microcomputer keyboard as well as a number of specific microcomputer commands such as "advance cursor" or "backspace" is assigned to one of the 256 ASCII codes. The microcomputer receives all of its processing instructions and data through the use of these coded words.

The microprocessor in the micro consists of several parts. The Central Processing Unit (CPU) performs all the logical and arithmetic functions of the computer. Essentially, the CPU performs all the functions of the micro by adding or subtracting the bits stored in special locations called registers. The registers have a very limited storage capacity, so the CPU must usually obtain the information it processes from the "memory" of the micro. Although some micro processors have this memory on the same chip as the CPU (such as the "old" 4 bit processors found in most electronic games), most 8, 16 and 32 bit micros have their memory stored on different chips, with wires (called busses) connecting the various chips to the CPU chip. This electronic circuitry is found on a circuit board commonly called the "Mother Board." There are five basic kinds of busses. Address lines define the location of data or instructions to be used next by the CPU. Data lines carry the data to and from the CPU. Timing and Control lines control the timing of the flow of the electrical signals. Clock lines set the timing of the system, and power lines provide the electrical power for the micro system to operate. In order to perform its assigned functions, the CPU may have to request the processing instruction information from one chip, the data to be processed from another and then store the results in another chip. However, the micro does all this processing in a few nanoseconds. A nanosecond is one billionth of a second.

All micros have preset operating instructions built into them. These instructions are loctaed in the ROM or Read Only Memory. The ROM usually contains between 5 and 50 kilobytes of information. A kilobyte contains 1,024 bytes. Each kilobyte is abbreviated by "K." Thus, a microcomputer with 8K ROM could be able to contain 8,192 bytes of information. The ROM contains the instructions necessary for the micro to begin when you enter your instructions (i.e., clear all registers, power up, load the operating system, start the cursor blinking and so on.) Most ROMs are pre-programmed by the manufacturer and may not be changed by the user. The ROM is not volatile in that it is not erased when the power to the micro is shut off. However, programmable ROMs (PROMs) and erasable programmable ROMs (EPROMs) are available on some micros.

The portion of memory that is used to store the programs and data entered by the user is called the RAM or Random Access Memory. This is also referred to as main memory, core memory or main storage. Data may move to and from the RAM and CPU. Being volatile, all data in the RAM are lost when the power is shut off. Most RAMs are based on units of 64K, with the most common configurations being 48K, 64K, 128K, 256K, 512K, and 640K. A 64K machine is actually capable of storing 65,536 bytes of information. This may seem like a lot of information storage capacity, but it is utilized very quickly. It takes 1 or 2 bytes to store just one letter or number. Most users seem to be able to outgrow their RAM very quickly.

Generally, the more RAM a micro has available for use, the more expensive the machine. RAM may also be purchased at a later date for installation into the micro. For example, certain micros may be purchased with 256K RAM and upgraded to a 512K RAM through the addition of an "expansion board." Some micros can be expanded even past their original computing capability by purchasing special equipment from hardware vendors specializing in modifying basic equipment. Most of the best selling micros have these options available because of high demand for them. Thus, an important feature in microcomputers is the number of expansion slots available on the mother board.

Some microcomputers have limited or no expansion slots available to the user because they are used for the installation of standard equipment. For example, certain micros have four expansion slots—one for the disk drive controller board, one for the color graphics board and a third for a printer board that supplies a parallel port for the printer. This leaves the user with only one expansion slot upgrading purposes. In contrast, a comparable micro may be equipped with a parallel port and disk drive controller built into the mother board (the main circuitry board), plus eight expansion slots. Thus, the user has a large number of expansion slots available for future upgrading.

Expansion Slots and Peripheral Devices

As discussed above the typical microcomputer has two storage areas, or memories, the ROM and the RAM. Both the ROM and RAM are limited in storage capacity. As a result, in order to utilize its full capability, external storage space is required in a microcomputer system. These external storage devices (also called auxiliary storage or mass storage) interact directly with the CPU and are used to transmit data to and from the CPU for processing. Currently there are at least four different classes of external storage devices: the data cassette recorder, the "stringy floppy," the "floppy" diskette and the hard disk.

The data cassette recorder is typically a modified version of the standard audio cassette tape recorder. The data cassette is connected to the CPU through a cassette port. Data are stored on a magnetic tape in audio tones, with one frequency representing a "0" bit, and another frequency representing a "1" bit of data. The data cassette transmits this audio signal to the CPU which then converts it into the digital electronic form required by the CPU. This audio to digital transformation is conducted by a component of the CPU called the I/O Processor.

The primary advantage of the data cassette recorder is that it is relatively inexpensive compared to the other forms of external storage. Cassette recorders typically cost between $40 and $80, with the magnetic tapes costing about $2. The cassette recorder is not without its disadvantages. First, it is relatively slow, greatly increasing the input/output time required to enter programs and data into the micro. Some micros, however, are capable of reading data from cassettes at varying speeds. The speed of reading data is called the baud. A baud is 1 data character per second. A standard transmission rate for cassette recorders is 30 baud. Second, it is relatively unreliable in that it has a higher probability of data transmission and storage errors than other storage devices. Third, it has limited storage capacity. A thirty minute magnetic tape is capable of storing only about 32K of data. Finally, magnetic recorders access and transmit data sequentially, (i.e., in a row, one after another). This creates the problem of finding the starting point of the data before transmission which can be time consuming.

As the price of the other external storage devices has fallen, the role of the cassette storage device has been reduced to the point where it is used as a storage device for only very small home computers, or for very large microcomputers. On large micros, with a hard disk drive, the cassette is used as an inexpensive data backup system. Typically, the backup systems, which cost from $1,000 to $3,000 and are capable of storing up to 50 megabytes of data from a hard disk, are used in MIS for business.

Besides the cassette recorder for storing data, some magnetic tape recorders store data directly in the form of a digital signal that is readable by the CPU. Although these digital storage devices are faster and more reliable than audio recorders, they are also more expensive. The wheel-to-wheel tape drives seen with main frame computers are of this type.

Another relatively low-cost data recorder is called the "stringy floppy." A stringy floppy is a device that stores data directly as a digital signal on a continuous loop of magnetic tape. One stringy floppy that is currently being marketed can store up to 70K, transfers data at 7200 baud and is relatively inexpensive. This technology is rapidly becoming obsolete as the cost of floppy and hard disk storage devices drop.

Magnetic disks remedy many of the deficiencies inherent in tape storage devices. They are typically much faster in operation partly because they utilize random access techniques in retrieving data. The disk drive goes directly to the location of the beginning of a data file and begins transmitting the data to the CPU as a digital signal. It does this by utilizing a disk directory (usually called the "FAT" or File Allocation Table) that tells the I/O Processor exactly where the desired program or data file lies on the disk. The access time for disk drives is usually measured in thousandths of a second. Disk drives also store data in digital form that is directly readable by the CPU. Disk drives are also faster mechanically than tape drives.

There are two types of disk drives: floppy disks, also known as diskettes, and hard disk drives. The floppy disk usually comes in two sizes, 5 1/2 and 8 inches in diameter, with a 3 inch size only now becoming popular. They are permanently enclosed in a paper or plastic covering that has "windows" in it through which the heads of the disk drives come in contact with the magnetic surface of the diskette. The storage capability of diskettes depends on whether the disk is single, double or quad density and single or double sided. For example, a single-density, single-sided 5 1/2 inch diskette can store approximately 80K to 120K, whereas a double-sided, double-density diskette can store up to 360K. Eight-inch floppy diskettes are capable of holding up to 1 million bytes (also known as 1 megabyte and referred to as 1M).

The storage capacity of diskettes is continually being increased through technological breakthroughs. For example, the "bubble" technology in which the writing surface of the disk consists of small magnetic bubbles instead of the current flat surface of magnetic material will greatly increase the surface area for writing data, thereby yielding a greater storage capacity. A serious problem arises as a result of the diversity of types of disk drives: not all disks can be read by all disk drives even when formatted on the same type of microcomputer. For example, a disk that is formatted on a particular brand of microcomputer with double-sided, double-density disk drives will not run on the same brand with single sided disk drives. (The converse is possible however.)

Hard disks are made of aluminum and are covered with a magnetic coating. They operate much faster than floppy disks and can store more information than floppy disks because the disk head that reads the information glides over the top of the disk without actually touching its surface. At the same time, machine tolerances of the hard disk drive are very fine; a single speck of dust between the read head of the disk drive and the surface of the disk can cause great damage. Hard disk drives, which are housed in special containers, are rarely exposed to the atmosphere except during maintenance. The user, however, has the option in some brands of hard disk drives to remove the hard disks. Hard disk drives currently can store from 1M to 100M of information.

The cost of disk drives varies in direct proportion to the capability of the drive. Floppy disk drives cost anywhere from $250 to $1,000 depending upon whether they are single or double-density, single or double-sided, or include a disk operating system software package. Hard disks also vary depending on the various capabilities. For example, a 360K, 40 track, double-sided, double-density disk drive with operating system currently costs about $300, while a hard drive system with 10M of fixed hard disk complete with all controllers, adapters, cables and so on costs approximately $1,000.

In addition to the processing and exchange of information between the CPU and the external storage devices, the micro also must exchange information with the user. There are two classes of peripheral devices that exchange information between the micro and the user: input devices and output devices. These devices are very important to the overall operation of the microcomputer system because the input/output time (I/O time) varies greatly depending on the capability of the I/O devices. Quite often, I/O time exceeds the processing time required by the micro, and the CPU has to wait until a particular input or output operation is completed before it can continue to process.

There are a wide variety of input devices that interface the user with the micro. The typewriter-like "qwerty" keyboard is the most common input device. Each time the user strikes a key, an electronic pulse is sent to the I/O processor of the micro which is converted into a digital signal usable by the CPU. Usually, these signals are stored temporarily in the RAM, and then processed on receipt of a unique user command, such as "RUN" in BASIC. Keyboards vary in characteristics. Some are flat, touch sensitive surfaces, while others are like typewriter keyboards with the addition of special command keys such as *BREAK, ESCAPE* and *CLEAR*. Two pitfalls in keyboards are the size of the keys themselves (some keys are too small for accurate fingering) and touch sensitivity (some keystrokes produce double letters). In addition, many keyboards have a special numeric pad similar to the keypad of an adding machine for quicker input of data.

Some keyboards are self-contained and are connected to the micro by means of a cable, while others are located in a unit containing other components of the microcomputer system. Certain models have the keyboard and the CPU in the same unit, some are in a self-contained unit containing the CPU, keyboard, video monitor and disk drives, still others have the components separate but connected to the CPU by cables.

There are a number of other types of input devices. Optical scanning devices, such as optical character readers and mark sense readers, are used to convert electrically detectable marks on paper into electronic signals for processing. Optical scan input devices allow for high volume data transfers and greatly speed up the data input process. Light pens enable the user to draw or write directly onto the surface of the video monitor. The image on the screen is then transformed into electronic signals to the CPU and either processed or stored for later output. Game paddles enable users to manipulate images on a video screen very quickly. Another common type of input device is the "mouse." A mouse is used to control the movement of the cursor on the monitor screen, and a pushbutton is used to indicate when particular actions are to be initiated.

A modem (modulator/demodulator) is another form of input device. Using the telephone communications system to carry audio signals over great distances, the modem enables users and other computers to communicate with the micro. This capability gives rise to distributive data processing in which data are entered into the data processing system via a remote terminal and sent to the host computer for processing. The latter then sends the processed information back to the originating terminal (often a micro) for retrieval. Modems also facilitate the formation of microcomputer networks (although they are not the only way to form networks). In a network, the microcomputers are able to share common external storage devices, including a large hard disk drive, a large CPU and other peripheral devices such as printers and color monitors. Networks will grow in importance in future years, with micros playing a central role as "smart terminals" in distributive data processing systems, in networks and in microcomputer based telecommunications systems.

There are a number of output devices in a microcomputer system which allow communication between the micro and the user. The video screen allows the user to see the information. The many different characteristics of video screens have a significant effect on the operation of the microcomputer system. Some video monitors produce color images (either RGB or composite), while others are in black and white. Some monitors are single color (monochrome) green or amber, colors which have been demonstrated to lessen eye fatigue. The resolution of the screens also vary. High resolution screens (such as RGB color monitors) allow for a greater number of images (known as pixels) per square inch of the screen. The resulting clear and sharp pictures are especially important for computer graphics. Some computers are capable of displaying only block character pixels on their video screen. These computers do not have the graphics capability of the high resolution video screens. Generally, the color video screens which have about the same resolution as a color television are higher in resolution than the black and white screens.

The printer allows the user to receive written output on a piece of paper. Printers also vary greatly in quality and features. Some printers come with a keyboard so that they can both send and receive information, but the typical printer can only receive. Printers produce character images on paper, thermally or electrostatically or by means of a dot matrix, daisy wheel, ink jet or laser. A dot matrix printer produces characters by arranging dots in predetermined order on the paper. Again, there is a question of resolution, with more dots per square inch producing a more desirable result. Some dot matrix printers produce letter quality print and some offer a variety of print fonts and other printing capabilities. Others have limited applications and deficiencies including an inability to print characters "below the line" (resulting in a "g" looking like a "9"), underline, or produce superscripts and subscripts. Some dot matrix printers are capable of double striking all characters producing boldly printed letters and "shadow" letters. The latter is produced by printing slightly displaced (i.e., to the right by .001 inch) dots over the first set of dots. A versatile dot matrix printer should have all these capabilities.

Daisy wheel printers use fixed type on a "daisy wheel" such as used in an IBM Selectric Typewriter. These printers produce letter quality print and are very fast, although the speed of the daisy wheel printers also varies greatly among brands.

They are versatile to the extent that the daisy wheel print font can be changed. High quality daisy wheel printers should also be able to print in ten or twelve picas per inch or proportionally, as well as underline and use superscripts and subscripts.

Ink jet and laser printers are very high speed printers that produce letter quality print. These printers are usually found in high volume data processing operations. Thermal and electrostatic printers use lower quality printing technologies which have been surpassed by recent printer developments.

The paper format which is used by a printer is very important. Printer paper comes in rolls, continuous pin feed and single sheets. A versatile printer is capable of handling all these paper formats. The width of the paper also varies from 4 1/2 inches (mailing labels) to 8 1/2 inches (standard typewriter paper) to 15 3/4 inches (wide computer paper). Most printers can handle either up to 8 1/2 inch or full-width paper. The printing speed varies greatly by printer. The ink jet and laser printers produce pages of print in a few seconds. Most dot-matrix and daisy wheel printers print between 10 and 200 characters per second.

Obviously, the cost of the printer varies according to the capabilities of the printer. Some dot-matrix printers cost as little as $250, but the print produced is not letter quality, nor do they have underlining and sub or superscript capability. One brand which sells for approximately $400 and produces a letter quality dot-matrix print, as well as having a versatile repertoire of printing fonts and other capabilities, can handle both friction feed and traction or pin feed papers. Daisy wheel printers begin at about $500 for slow, letter quality printing, and increase to over $2,000 depending upon speed and capabilities. Ink jet and laser printers range between $2,000 and $15,000.

The interfaces between the input and output devices and the CPU are very important. Interfaces perform a variety of functions. In addition to the hardware interfaces built into the micro, a number of software interface enhancement programs (called utilities) are also available. Because of the differences in operating speeds of the CPU (hundreds of thousands of operations in a second) as opposed to the slower speed of a printer (10 to 200 characters per second), devices called "spoolers" provide temporary storage for output from the CPU until the printer can "catch up." Each type of input and output device requires an interface with the CPU.

Fortunately, the computer industry has standardized two interfaces for microcomputer use: The RS232-C Serial Interface and the Centronics Parallel Interface. A serial interface transmits and accepts information one bit at a time, while a parallel interface accepts more than one bit at a time depending upon the number of wires in the cable. For example, an 8-wire parallel interface could transmit and accept 8 bits of information at a time. Because of this, parallel interfaces are usually quicker than serial interfaces. However, the RS232 interface is much more universally used in microcomputers, and either comes as standard equipment on most computers, or may be purchased separately. Such an interface is required for communications with other data processing systems. Further, the bus or signal lines that connect the interface with the CPU have also been standardized (the S-100 bus being the most prevelant). Taking advantage of this standardization of busses, many microcomputers manufacturers have built in bus structures into the CPU boards into which special purpose boards or cards may be inserted. This standardized plug-in bus structure is often called the "mother board." Through these mother boards, special language cards, graphics chips or voice synthesizer chips may be simply installed into the micro, greatly enhancing its capabilities and versatility. For example, it is now possible to buy a special plug in board for certain microcomputers which automatically allow the micro to run certain other brands of software.

Microcomputer Software[3]

As previously discussed, the microcomputer's ROM (Read Only Memory) contains a set of instructions that the microprocessor acted on immediately at startup (pushing the off-on switch). This obviously is not the only set of instructions used in the operation of a microcomputer. Taken together, the various sets of instructions comprise the "software" of a microcomputer system. Even the best equipment is rendered virtually useless without appropriate software.

Besides the ROM, the manufacturer of the micro also has to supply the user with a set of programmed instructions that give the microprocessor the necessary information to utilize the programs and data that are stored on the disk storage devices. These include a set of programs which: 1) give the microprocessor the necessary instructions on how to interact with the disk storage devices; and 2) give the user the capability of interacting with the disk storage devices. This software is called the Disk Operating System (DOS). All computers have an operating language, and all microcomputers have a DOS. Unfortunately, the DOS is not the same for all microcomputers. A disk which is formatted for one brand of micro will not run on another (unless the user has installed a special card on the mother board which enables it to do so) because the DOS is different.

The DOS typically consists of a set of programs which:

1. Tell the microprocessor how to obtain information from the storage device.

2. Enable the user to interact with the storage device by storing and retrieving programs or data from the storage device (such as a disk directory routine, a disk copy program and a program which checks how much storage room is left on the disk).

3. Contains a number of programs designed by the microcomputer manufacturer to facilitate the use of the microcomputer in general (such as a line editor, a higher language program and a machine language compiler).

Most disk operating systems have the same basic functions, but they may be called different names on different machines. For example, the program which lists all the files on a disk is may be called a "CAT" for catalog or a "DIR" for directory in MS DOS depending on the brand of microcomputer.

While the ROM gives the microcomputer start-up instructions, and the DOS tells the micro how to interact with the storage device, there must be a way for the user to tell the micro what data processing application is desired. These programs are the most important from the standpoint of users, but typically do not come with the microcomputer because the manufacturer cannot know what applications are most important to various users. There are three primary ways to obtain these programs: 1) write them, 2) obtain general purpose software and adapt them to that specific application, or 3) buy commercially available software designed for that specific purpose.

Computer programs are written in special languages that are understood by the processor unit in the computer. As discussed previously, the central processing unit of the computer accomplishes its tasks by manipulating long series of "0" and "1" digits in the "Binary" language. When the machine is designed, other languages are built into the machine, either into the CPU circuitry itself or into the ROM. Typically, the higher level languages are "assembly" language and BASIC. The computer must translate these higher languages back into a series of 0's and 1's. This is where the operating speed of the micro becomes important.

These higher language programs are written in a form that the user may readily understand. However, simply being able to recognize the words "go to," "input" and "print" does not enable a person to program in that language. Programming requires a great deal of training and practice, and once learned is very time consuming and tedious work. As most school business administrators are trained in other skill areas, writing computer programs is not the most efficient use of their time, and should be left to technicians. Thus, if a school business administrator wants to perform an application on the microcomputer, he or she must either have the program written for the school district or buy a program that is already developed and adapt it to the district's needs.

Conventional wisdom in the microcomputer industry estimates that an efficient program that performs a valuable management task requires upwards of 5,000 to 10,000 man-hours of programming time to write. At 1985 prices of approximately $25.00 per hour of programming time, the average business software package costs the developer $100,000 to $250,000 and up. Thus, when the user has a software development firm write a customized software program according to specifications, they are essentially paying that developer for the time required to write and test a program. If the cost of developing that program cannot be shared by selling it to other users, it is usually prohibitively expensive to have that application package written.

This problem was well recognized in the late 1970s and early 1980s when school districts were using minicomputers that did not have commercially developed software readily available, and the districts had to have software written especially for them. This is one of the reasons why the use of microcomputers in school districts has flourished. Because the microcomputer does not cost as much as the mini or mainframe computers did, the more school district money is available to purchase software.

Software Programs and Packages

A viable option for school business administrators who cannot write programs or determine not to have it especially written for the district is to adapt software packages designed for general business purposes to the needs of the district. There are three primary types of general purpose software: word processors, electronic spreadsheets and data-base management packages. While it is beyond the scope of this chapter to discuss these packages in great detail, a brief discussion of each appears below.[4]

Word processors are used to facilitate the development and printing of all types of documents. They allow for many changes in the text of a document, and enable the production of a final document much more rapidly than manual or typewriter based methods. No business office should be producing documents without some type of automated word processing system.

The availability of *electronic spreadsheet* software is probably the primary reason for widespread business use of microcomputers. In essence, anything that can be performed with a pencil, paper and hand-held calculator can be performed much more rapidly and virtually 100 percent error free using an electronic spreadsheet. The use of this software is limited only by the creativity and time constraints of the user. At present, there are thousands of applications in school business administration that are being performed through the use of electronic spreadsheets, as discussed later in this chapter. While some spreadsheets are better or more versatile than others, all have essentially the same features and perform the same functions. The recalculation, built in mathematical and statistical functions, advanced analysis and graphing capabilities, to name only a few features, make the electronic spreadsheet an invaluable tool and should be an integral component of any management information system in a school business office.

Data base management programs are the third general type of software package available on the microcomputer. These packages allow the user to input, store and retrieve large amounts of data in a structured fashion. Once entered, the data may be manipulated in a variety of ways and produced in a report format that is designed by the user. These packages have been used for the development of personnel management systems, fixed asset accounting systems and, in general, any application that requires the development and production of lists of data. Again, there are many uses for this type of software package in a school business operation, and no school district should be without one.

While the uses of word processors, electronic spreadsheets and data base management software packages are many, the main drawbacks to their use are that the user must: 1) learn how to use them efficiently, and 2) have the time and creativity to develop the application of interest. For example, one area of application for school business management is in the cost analysis of salary schedules. It may take an accomplished user of an electronic spreadsheet several working days to develop and test a spreadsheet that performs an analysis of a new salary schedule. There are, however, several commercially available software packages that are designed specifically for this purpose which yield a wide variety of useful statistics and handle a number of different formats for salary schedules. At a price of $250 to $500, these packages perform salary schedule cost analyses better than most "home made" electronic spreadsheets produced in a reasonable amount of time. The trade-off, of course, is whether the cost of the specific application package is lower than the cost of the time that it would require one to develop a comparable application on the electronic spreadsheet. If the cost of the commercial package is low, it would probably be cost-effective to buy a package rather than develop the application.

The problem with commercially available software is that the software development firms have not yet been willing to invest time and money in the development of an application package that has a limited market. These packages cost a great deal of money to develop and test, and a large number of sales must be anticipated before a company is willing to take the risk. Fortunately, as more microcomputers are sold to school business administrators, the more these software development firms are willing to write software which meets school districts' needs. Many of these packages are cost-effective, and school business administrators are exploring their use.

Another constraint to the development of the commercially available software has been that microcomputers have not had the technical capability of handling the large data sets required for the major business operations of a school district, such as budgeting, accounting, payroll and personnel management. However, as the microcomputers gain in computing and storage capacity, the software development firms will begin to produce the applications packages for these major business areas. These packages will become cost effective to purchase.

Despite the fact the microcomputers have not been in use a long time, there are a large number of commercially available software programs that are useful in a school business operation, in addition to the word processors, electronic spreadsheets and data base management packages just discussed. Many of these contain specific programming features which will greatly reduce the amount of time it takes to learn and use these programs. The following is a list of features of "user-friendly" software packages that should be considered when buying software.

1. *Auto Boot* implies that the user simply has to take the disk on which the software resides, insert it into the disk drive, turn on the machine and the program automatically is loaded into the microcomputer and runs. This feature eliminates the need to know what language the program is written in which in turn determines the mode of booting.

2. *Menu Driven* software programs present a screen giving the user choices regarding the particular aspect of the program that they want to use. All the user has to do is to press the key on the keyboard of the number that lists their choice on the screen. This feature eliminates the need to know how the program operates or what keystrokes are needed to perform a particular operation of the software program.

3. *On-Screen Documentation* means that the set of instructions needed to operate the program may be shown on the screen. This eliminates the need to search through a manual to find the instructions needed. This also allows users to refresh themselves on the use of the program if the manual is unavailable.

4. *Help Screens* are usually one of the first options in a menu driven program. Typically, if you press the key for help, either an abbreviated discussion of the software program is given or a discussion of what the rest of the options on that particular menu are and the order in which they must be used is presented.

5. *Flexibility to Adapt to Various Equipment Configurations* is desirable for a number of reasons. A good software package should be adaptable to a wide range of equipment and should state what equipment is required on the outside of the package. For further protection against problems, the user should have the program demonstrated by a salesperson familiar with the package, and should ask what equipment is needed.

6. A good software package should give users the *Ability to Design* their own

reports. Quite often, the software package has reports designed to meet some preconceived concept. Unfortunately, these reports may not resemble anything that the user has been using previously, forcing users to change their mode of using the reports.

7. *Error Recovery* is important, especially for the novice user. Quite often the user may push the wrong key or not follow the required procedures for using the software. Some programs are unforgiving of mistakes of this nature, resulting in a loss of data. Error recovery means that even if an error is made by the user, the program will either not allow the error and wait until the user keys in the proper response, or will bring the user back to the point of operation in the program at which the error was committed.

8. *Multiple Points for Saving Data Files and Reports* is important because when manipulating data and files, many changes are made which the user may wish to save on the data disk for the future. Many programs, however, do not give the user the option of saving a data file or report until just before terminating use of the program. A good program will prompt the user to save a file at the point when changes are made.

9. An *Escape Key* gives the user a capability of correcting an operational mistake as soon as it occurs. For example, if a report is being printed that is not designed properly, pressing the "escape" key will stop the printing operation and allow the user to correct the mistake without having to wait for the entire report to be printed, thereby saving time, paper and energy.

10. A desirable feature of a good software program is the flexibility to *Use Either One or Two Disk Drives*. Some programs allow the user to use only one disk drive even though two drives are available, resulting in a lot of disk swapping and lost time.

11. *Alternative Print Modes* is a nice feature, especially in word processing and report generating programs that use dot matrix printers. Some programs allow the user to use bold and shadow printing, and/or to print in a variety of printing fonts such as italics and Old English lettering.

12. *Auto Dating of Reports* is a feature that is needed if a lot of reports are printed using the same format but at different times of the day or on consecutive days. Auto Dating programs will automatically print the day and the time on the report making it much easier to distinguish one report from another.

13. *Clear Documentation With Immediate Start Up Direction* is important, since most users want to immediately begin using their program as soon as possible.

14. A nice feature is to have *All Required Program Files on One Disk*. In the operation of many programs, one must load the Disk Operating System, which is on one disk, load the language compiler, load the program lan-

guage, and then the program, and then the data file before the program can be used. A good program, especially one with an auto boot, will have these files on one disk (or a hard disk or RAM Disk) which will greatly speed the operation of the program.

15. Quite often in the operation of a program, the user will not know what the program is doing at any given time, and it is not unusual for a program to be operating for several minutes without anything showing on the screen to indicate that it is working. A good program will always give the user a prompt, such as "The figures for the report are now being generated," so that the user always knows what is going on.

16. A *Hotline* or a phone number for the user to call anytime day or night when problems occur is available with many of the larger and more reputable software firms.

17. *Low or No Cost Access to Program Updates* is important because programs are constantly being updated with new features or having "bugs" in the program fixed. Many companies, however, charge the purchasers of earlier programs the full cost of any program updates they buy.

18. *Ability to Backup the Program Disk* is essential, especially when the program is used on a daily basis. The user should always make several working copies of the original program disk and use those in the day-to-day operation, storing the original in a safe place. However, many software companies do not allow their software to be backed up for fear that someone will copy the program and give it away. While such software piracy is rampant and is a major problem in the software industry, not being able to copy software is a major problem to the user if the original is lost or damaged.

19. In software packages that generate reports, a useful and time-saving feature is the *ability to pick files for reports*. Quite often, the user will find that a number of data files have been produced previously which need to be combined in a variety of ways to meet a particular need. However, many software packages are designed so that the user has to go through the whole procedure of calling up, changing, storing and then printing a report. A good program will allow users to simply select the names and order of the data files desired and then print a new report.

Of course, not all software programs will have all these features, but if a program is obtained which has as many of these features as possible, the user will be much more satisfied with the operation of that program, and the time required to get the job done will be greatly reduced.

Human Aspects of MIS

While hardware and software are important to a computer based MIS, the human aspects of the MIS are equally, if not more, important. The major facets of the human component of MIS requiring attention include: 1) overcoming resistance to the implementation of an MIS, 2) training for efficient MIS usage, and 3) managing the MIS operation.

Overcoming Resistance to Implementation

Without proper consideration of the behavior of the people in the business office setting, the best technically designed system is likely to fail. As with most innovations, the introduction of a new MIS represents a threat to organizational relationships and psychological needs of the people in the office. There are a number of specific reasons for implementation resistance.

1. *Threat to status*. A supervisor may be downgraded below a technician in the organization.
2. *Threat to ego*. A key skilled clerical job is performed by an unskilled computer operator.
3. *Economic threat*. Fear of loss of a job.
4. *Job complexity*. A new microcomputer requires a great deal of new and technical knowledge, which has to be learned.
5. *Isolation*. The top manager feels he will be deprived of the "personal" information now gained when he is made dependent on computer output.
6. *Superior/Subordinate relationships change*. New information flows produce new balances between the superior and subordinate.
7. *Job ambiguity and loss control*. Planning and control is performed largely by the MIS except for special occasions that occur randomly.
8. *Time rigidity*. The total system requires "programmed" coordinated actions similar to a mass production assemble line.
9. *Interpersonal relationships changed*. Former informal work groups and working relationships are broken.

There are three actions that may be taken to reduce the perception of threat from one of the nine causes listed. First, a climate for change must be created by having the managers and clerical staff dissatisfied with the present system voice their concerns. This may be accomplished by holding a series of seminars focusing on what is wrong with the present system and methods for revision. Participants of the seminar should be left with a feeling that changes are needed and will be made, and that their views are being taken into account before any specific changes are made.

Second, effective agents for change must be developed within the organization. There are informal leaders within any organization to whom other members of the work group look for protection and security. These key actors must be identified and their support for the MIS must be gained.

Third, modify the organizational requirements as specified by the MIS to more closely fit existing arrangements, if such adaptations enhance the effectiveness of the MIS. The "required" organization is a mechanistic technical organizational design. Alternate organizational structures, which are not "technically" ideal may be selected, however, in order to achieve working relationships that are far more productive.

Training

Once the resistance has been overcome, and the MIS is in operation, two things must happen: the staff needs to be trained in its use, and the MIS needs to be managed on a day-to-day basis. The training that is required is dependent upon the type of MIS that is implemented. If the MIS is designed for the sole use of the manager as an extremely sophisticated desktop planning tool, the training required would most easily be accomplished by sending the single user to a training program at the local microcomputer dealership or college. However, if the MIS is designed for multiple uses by a wide variety of staff, the complexity of the required training is substantially increased.

There are many ways to obtain training. The first step in any training process is to read the manuals that come with the hardware and software. A second step is to read some of the trade periodicals which are readily available. The final step is to provide an in-service training program for the MIS staff. The following are some guidelines to follow in the preparation of an in-service training program.

1. Learn how to use the microcomputer first before applications. This includes: basic operating procedures of the systems components such as the CRT and printer; implementation of the DOS commands including library and backup procedures; basic maintenance routines for hardware and diskettes; and a clear understanding of the dynamic nature of working with a microcomputer "on-line."

2. Schedule training of software packages in order of operating priorities.

3. Do not expect all persons to become an expert in all aspects of the MIS. Have people learn only what is necessary to perform their tasks efficiently.

4. Standardize your software so that all persons doing the same kinds of tasks will be working with the same brand of software. For example, do not have three different kinds of word processors.

5. Isolate the staff from their normal activities during the training period, but provide the training during normal working hours.

6. Provide the staff with the documentation of the hardware/software that each person will be using. After the training period is over, urge them to use the reference materials when problems arise before asking for help from other staff members.

7. Remember that the only way to learn how to use a microcomputer is to sit down in front of one and start to use it. Efficiency seems to grow exponentially with experience.

8. Be patient.

The Management of the MIS

Once the MIS has been implemented and the staff trained in its use, the management procedures of the MIS day-to-day operations deserve some attention. Successful use of the MIS is dependent on an infrastructure or supporting system. The first step in establishing such a system is to specify a set of procedures to control how and by whom the MIS is to be used. This should include rules and decision standards for issues arising in every day use. Who may use the machines and for how long? For what purpose? What work takes priority? How are support resources to be allocated?

The second management task involves the provision of resources needed by computer users to solve problems of implementation and use. Complete documentation of hardware and software is necessary. In-house consultants should be readily available because going outside is too time-consuming and expensive. Encourage workers to help each other, share experiences and engage in group problem solving. This may result in some lost time initially, but the rapid gain in computer expertise will rapidly make up for this loss. Information should be shared vertically with management also. If encouraged and rewarded, management will discover problem areas and successes quickly enough to initiate timely action.

The third element in the support system is control and security. There are a number of security concerns: 1) maintaining security of sensitive information when the MIS is in use, 2) securing the hardware and software from their theft or vandalism, and 3) securing the MIS from accidental damage. The value of the information stored in files far exceeds the value of the hardware and software because hundreds of hours of staff time was invested in creating those files. Electronic storage media such as floppy and hard disks can be damaged by exposure to static electricity, eletromagnetic fields, x-rays, high temperatures, bending, scraping and finger prints. Simple backup procedures for files and operating instructions for all personnel that come into contact with the MIS will help avoid a catastrophic loss.

Security against theft or damage to the hardware requires both organizational support and physical resources. Users must be trained in the proper use of the equipment. The sugar content in a spilled can of soda can erode the electrical connections in the keyboard, bringing all operation of the MIS to a stop until the problem is resolved. A single static charge can wipe out files on a floppy disk. Theft and accidents can be avoided by establishing and enforcing simple but reliable procedures. Hardware and software manuals detail many of the most common problems and how to avoid them. Physical security for the MIS installation may require additional hardware purchases, such as special microcomputer work stations that may be bolted to the floor and locked after working hours. Placing floppy disks in locked file cabinets may be necessary.

Theft or misuse of information is an equally dangerous possibility. Procedures must be established for coding and protecting sensitive files, such as personnel data. Logs and signout rules for file users should be established. Where microcomputer systems are linked to mainframes, the problem of security extends to files maintained on the larger systems.

Finally, the manager of the MIS should ensure adequate supplies including printer paper, ribbons, print heads, daisy wheels, disks and fuses. The complete list of needed supplies depends on the specific work site, but might also include dust covers in dusty areas, voltage surge protectors and backup power supplies, disk drive cleaning kits, anti-static sprays, binders for output and documentation, disk storage containers and special purpose printer papers such as labels. The amount of supplies needed for computer operations typically exceeds expectations, so a reserve budget for these items is necessary.

The design of the operating environment of the MIS is as important as the design of the hardware and software aspects of the MIS, and the successful implementation and operation of the MIS is dependent on the people that use the system. The manager of the MIS must attend to these facets in order to gain the full benefit of the investment in the management information system.

Microcomputers and the School Business Administrator: Specific Applications

The microcomputer has the potential to revolutionize the way in which school business administrators do their job. While much of the impact of this revolution has not yet been felt, within the next five years the school business administrator's duties, responsibilities and functions will be different. Many of the time-consuming, day-to-day tasks will be computerized, greatly reducing or eliminating the time business administrators spend doing traditional tasks. With more time available, administrators will turn to tasks that they simply have not had the time for in the past. Yet even today, there are many uses of the micro in the school setting. The section below provides an overview of many of these applications.

Table 8:1. lists potential microcomputer applications in school districts. Many of these applications are administrative in nature. Until recently, the majority of these applications were not possible without a large "mainframe" computer. However, with the recent advances in memory storage capacity of microcomputers, all of these applications are possible for most school districts on a microcomputer. The ability to perform these tasks in-house eliminates many of the time delays of sending computer work to a centralized computer operation. This also allows school administrators to exercise more control over the information needed, reports generated and time deadlines to be met, not to mention cost considerations.

While the microcomputer equipment for accomplishing these tasks may be available, the actual programs needed to perform many of these tasks are still under development. It will take a few years for the software development industry to catch up with the advances in equipment technology. Nevertheless, there still are a great number of helpful applications.

Word processing is one of the first applications. Studies have shown that the use of a word processor instead of a typewriter will increase clerical productivity an average of 48 percent. Besides typing, the word processor may also be used for bulk mailings, filling out preprinted forms and specialized printing. Printer enhancement programs for dot matrix printers allow the user to print text in over twenty printing head fonts, from Old English to Script to Ultra Modern Computer Type. Each of these fonts may be enlarged up to twenty times automatically. With this program, the user has a virtual print shop right in the office.

Microcomputers are also extremely useful in the development of reports and lists from a data base. The important consideration to remember is that once the data base is developed, any number of reports can be quickly generated and printed in any format the user wishes. For example, the user can create a report listing the names, addresses and telephone numbers of all students that have a school owned instrument within minutes.

Figures 8:1 and 8:2 illustrate typical reports that can be developed by school districts with microcomputer software. These are actual reports school districts have produced using electronic spreadsheet programs. Once these templates have been developed, the programs may be used year after year for the same application by simply inserting the updated data for the year of use. As the reports are updated and new data are inserted into the proper place on the electronic spread sheet, all the figures dependent upon the new figures are recalculated automatically. This results in hours and days of administrative and clerical time savings.

Figures 8:3 and 8:4 show two more electronic spread sheet applications, both concerned with school cash management. The first shows a cash flow that is used to determine the periods for school district borrowing and investing. Figure 8:4 displays a report showing a district's interest earnings on investments. This program calculates both the interest income due and the total interest earnings.

Table 8:1 Educational Uses of Microcomputers

Administration					
Student	**Finance**	**Personnel**	**Facilities**	**Library**	
Admissions	Accounts Receivable	SUN Teacher Assign.	Security	Bibliographic Search	
Registration	Planning	Payroll	In-house Management	Serials Periodicals	
Scheduling	Budget Development	Personnel Systems	Audio-Visual Library	Circulation Control	
Student Records	General Ledger		Vehicle Scheduling	Cataloging	
Attendance	Purchasing A/P		Maintenance Scheduling	Acquisitions	
Census	Fund Raising		Equipment Inventory		
Alumni Records	Portfolio Analysis		Supplies Inventory		
Student Activities	Fixed Asset Acctg.		Food Service		
Student Health			Housing Dormitories		
Student Placement			Scheduling & Utilization		
Student Financial Aid					

Instruction					Research	Public Service
Guidance & Counseling	**CAT**	**CMI**	**Computer Education**	**Student Computing**	**Research**	**Community Support**
Student Counseling	Test Preparation	Drill & Practice	Literacy/Concepts	Student Programming	Statistical Analysis	Extension Services
Career Guidance	Test Scoring & Analysis	Tutorial/Dialogue	Operations Training	Application Packages	Mathematical Analysis	Continuing Edu.
	Diagnosis & Prescription		Programming Training		Non-Numeric Analysis	Recreational Activities
			Computer Science		Project Admin.	Vocational Edu.
					Simulation	Adult Education
					Data Aco/ Reduction	Museums & Galleries
					Process Control	Cultural Events
					Graphics	
					Info. Retrieval	
					Text Editing	

General Fund
Budget Status Report
Detailed Statement Of Revenues

Local Sources	Original Budget	Anticip. Revenues	Actual To Date	Balance
Real Property Tax				
A1001 Real Property Tax	2686606	2683070	2683070	0
A1090 Interest-Penalties	0	10755	10755	0
A1099 Total Tax Items	2686606	2693825	2693825	0
Charges For Services				
A1310 Day Sch Tuition/Ind	0	1200	750	450
A1315 Adult Ed Tuition	500	480	335	145
A1330 Textbook Charges	0	0	0	0
A1335 Other Student Charges	200	350	180	170
A1410 Admissions	2000	3294	3294	0
A1489 Other Charges/Ind	500	400	170	230
A2229 Other Gen. Serv/Govt	0	0	0	0
A2230 Day Sch Tuition	5000	5250	1500	3750
A2235 Services For Boces	0	1100	0	1100
A2304 Transp. Other Dists.	0	0	0	0
A2308 Transp. Boces	0	0	0	0
A2350 Youth Rec. Srvs/Govt	1000	1957	387	1570
A2389 Misc Rev Other Govt	1000	746	746	0
A2399 Total Charges/Svcs	10200	14777	7362	7415
Use Of Money-Property				
A2401 Interest & Earnings	60000	90000	72668	17332
A2410 Rental Real Property	5000	4000	3000	1000
A2412 Rental Real Prop. Govt.	0	2250	2250	0
A2413 Rental Real Prop. Boces	2000	3200	2240	960
A2414 Rental Equip/Ind.	200	200	168	32
A2440 Rental Other	0	0	0	0
A2450 Commissions	250	100	48	52
A2499 Total Use Money	67450	99750	80374	19376
Sale Of Property And Compensation — Loss				
A2650 Sale Of Scrap And Excess Materials	0	0		0
A2666 Sale Of Transportation Equipment	1677	2148	2148	0
A2680 Insurance Recovery	0	2654	2654	0
A2690 Other Compensation For Loss	200	88	88	0
A2699 Total Sale Of Property And Loss	1877	4890	4890	0
Miscellaneous				
A2701 Refund Of Prior Year Exp. — Boces	1200	49278	49278	0
A2705 Gifts & Donations	0	2418	2418	0

Figure 8:1 Sample Financial Report Generated with Microcomputer Software

Tentative Tax Rates
Current Years

Town	Av	Eq. Rate	Fv	Prop.	Tax/Fv	$1000/Av	Check	Prior Yr.	Change
Cairo	17429719	.1903	91590746	.582142505	1536949.36	88.18	1536935.19	89.86	-1.68
Durham	8363433	.1562	53543105	.340315137	898486.41	107.43	898483.61	109.12	-1.69
Athens	430766	.2086	2065034	.013125169	34652.55	80.44	34652.54	82.32	-1.88
Catskill	707456	.2426	2916142	.018534735	48934.67	69.17	48934.02	70.25	-1.08
Coxsackie	63683	.1747	364528	.002316907	6117.01	96.05	6116.94	97.03	-0.98
Greenville	724003	.141	5134773	.032636153	86164.67	119.01	86164.32	120.22	-1.21
Conesville	22251	.0503	442366	.002811638	7423.18	333.61	7423.16	338.07	-4.46
Rens'ville	63349	.0496	1277198	.008117755	21432.17	338.32	21432.17	343.51	-5.19
Total	27804660		157333892	1	2640160		2640141.95		
					2640160.00		18.05		
Budget	5063043								
Fund Balance	320539								
Revenues	2102344								
Tax Levy	2640160								

Figure 8:2 Sample Report — Produced by Microcomputer Software

CASH FLOW
CURRENT YEAR

DATE		EXPENDITURES		REVENUES		BALANC
MONTH	DAY	TYPE	AMOUNT	TYPE	AMOUNT	
SEPTEMBER						
	14	CASH				738938
	15			AID	33880	772818
	15	BC/BS	18000			754818
	15	DENTAL	1876			752942
	15	SOC. SEC.	15588			737354
	15	REPO-9/21	160000			577354
	15	REPO-9/28	300000			277354
	15	CD-12/14	140000			137354
	15	CD-12/23	200000			-62646
	18			CD-8/18	150000	87354
	18	PAYROLL #6	310000			-222646
	18			REPO-9/9	106000	-116646
	21			REPO-9/15	160000	43334
	25	WARRANT #2	300000			-256646
	25			TAXES	566000	309354
	25	CD-10/5	250000			59354
	25	REPO-10/5	200000			-140646
	25	CD-12/23	100000			-240646
	28			REPO-9/15	300000	59354
	28	BUS BONDS	26400	CD-5/28	150000	182954
	28			REF.	40000	222954

Figure 8:3 Sample Reported Generated by an Electronic Spreadsheet Program.

INVESTMENT SCHEDULE
July 1, Current - June 30, Current Year

Date:

DATE		SOURCE OF	BANK	PRINCIPAL	INTEREST	NO. OF	INTEREST	TOTAL INV.
INV.	DUE	FUNDS	DEP.	AMOUNT	RATE	DAYS	INCOME	INCOME
2/18	9/18	ST. AID CHEN		150000	.175	37	2697.92	2697.92
5/28	7/13	ST. AID S.T.		150000	.172	46	3296.67	5994.58
5/28	7/27	ST. AID S.T.		110000	.172	60	3153.33	9147.92
6/16	8/10	ST. AID S.T.		100000	.1675	55	2559.03	11706.94
6/16	8/21	ST. AID S.T.		100000	.1655	66	3034.17	14741.11
6/16	8/27	ST. AID S.T.		386000	.1655	72	12776.60	27517.71
8/26	9/4	ST. AID S.T.		100000	.1725	7	333.42	27853.13
8/28	9/14	ST. AID S.T.		200000	.165	17	1538.33	29411.46
9/9	9/18	ST. AID S.T.		106000	.16875	9	447.19	29858.65
9/15	9/21	TAXES S.T.		160000	.155	6	413.33	30271.98
9/15	9/28	TAXES S.T.		300000	.16	13	1733.33	32005.32
9/15	12/14	ST. AID L.F.		140000	.1625	90	5687.50	37692.82
9/15	12/23	ST. AID L.F.		200000	.1625	99	8957.50	46630.32
9/25	10/5	TAXES S.T.		200000	.1415	10	786.11	47416.43
9/25	10/30	TAXES S.T.		250000	.153	33	3718.75	51133.18
9/25	12/23	TAXES S.T.		100000	153	89	3782.50	54917.68

Figure 8:4 Sample Report Generated By An Electronic Spreadsheet Program.

While all the applications to this point have been performed by electronic spread sheet programs, Figure 8:5 displays a report that was generated from a commercially developed software package which is designed to generate new salary schedules and produce cost outs of these salary schedules. The user must input initially a scattergram of FTE employees in a base year and the salary schedule in the base. The program then allows the user to update the scattergram and increment it one year, and to generate a new salary schedule by increasing the base year salary schedule by a percent or dollar amount for any step or column. It then allows the user to prepare a number of reports, one of which is shown in Figure 8:5. The advantage of this type of program, which handles both salaried and hourly employees, is that it is versatile and fast. The purchase of such a program is generally cost effective in comparison to electronic spreadsheet programs with similar capabilities.

```
                          SCHOOL DISTRICT
                       NEW SALARY COST-OUT
--------------------------------------------------------------------------------
                                           B + 40     B + 70     B + 80
                           B      B + 30     M        M + 30     M + 40    TOTALS
STEP 1                     0         0          0          0          0         0
STEP 2                 20100         0      30000      62400      16600    129100
STEP 3                 13600     29400      24320      79000          0    146320
STEP 4                112800     60800      65940      40900     230100    518540

TOTALS                146500     90200     120260     190300     246700    793960
(NEW SALARIES TIMES ADJUSTED SCATTERGRAM)

TOTALS                130400     81400     108680     172800     224400    717680
(BASE SALARIES TIMES BASE SCATTERGRAM)

DIFFERENCES            16100      8800      11580      17500      22300     76280
(INCREASE INCLUDING INCREMENT)

INCRMT ONLY             1100       400        960       2200       1600      6260

                                  ------INCREASES PER FTE ------        AVERAGE
                                  EXCLUDING           INCLUDING          SALARY
                                    STEP                STEP              PER
EMPLOYEE SCATTERGRAM SUMMARY      INCREMENT           INCREMENT           FTE
   FOR  27.3  EMPLOYEES  PREVIOUSLY
NOT ON TOP STEP                 1301  ( 9.18%)     1530  (10.98%)        15467
   FOR  23.0  EMPLOYEES  PREVIOUSLY
ON TOP STEP                     1500  (10.23%)     1500  (10.23%)        16161
   FOR 50.3 EMPLOYEES
   (ALL INCLUSIVE)              1392  ( 9.6  %)    1517  (10.63%)        15784
--------------------------------------------------------------------------------
```

Figure 8:5 Sample of Report Generated By Commercially-developed Software Package.

Figure 8:6 demonstrates a use of microcomputers for transportation management using an electronic spreadsheet program. The report uses bus maintenance information to perform a monthly bus cost analysis. There are also numerous bus routing and scheduling programs which may be used to prepare school bus routes and schedules that reduce bus ride times, miles traveled and total transportation costs.

TRANSPORTATION DEPARTMENT
MONTHLY BUS COST ANALYSIS

DATE: # BUSES: 9

BUS #	MILES	GAS	OIL	TIRES	REPAIRS	TOTAL	COST/MI
7	387	77.80	12.03	0.00	45.53	135.36	0.35
8	478	86.50	1.57	174.87	219.89	484.83	1.01
11	423	81.50	17.50	0.00	73.89	172.89	0.41
12	603	106.90	2.59	435.50	16.03	561.42	0.93
13	501	90.75	0.00	0.00	88.87	189.62	0.38
15	399	79.03	15.50	0.00	23.10	117.63	0.29
21	457	82.03	3.80	123.80	0.00	209.63	0.46
23	576	95.90	0.00	0.00	179.50	275.40	0.48
24	513	93.78	13.80	0.00	34.90	142.48	0.28
TOTALS	4337	796.19	66.79	734.57	691.71	2289.26	

MONTHLY AVERAGE COST PER MILE: 0.51

Figure 8:6 Sample of Transportation Department's Report Using Electronic Spreadsheet Software.

Figure 8:7 shows a report prepared using an electronic spreadsheet program for the analysis of food service costs, and a profit and loss statement for the food service program over a period of eight months.

SCHOOL LUNCH OPERATION
STATEMENT OF OPERATIONS FOR THE PERIOD
JULY 1, CURRENT YEAR - MARCH 31, CURRENT YEAR

	MARCH					
SALES						
SALES OF TYPE "A" LUNCH	12665.15			70680.28		
OTHER CAFETERIA SALES	9449.72			56520.97		
TOTAL SALES		$	22114.87		$	127201.
VALUE OF FOOD SOLD	24064.50					
BEGINNING INVENTORY	12088.65					
+ PURCHASES OF FOOD	36153.15					
TOT. GOODS AV. FOR SALE	20581.00					
-ENDING INVENTORY		$	15572.15	15701.01		
VALUE OF FOOD SOLD		$	6542.72	82329.83		
GROSS PROFIT				98030.92		
				20581.00		
					$	77449.
OPERATING EXPENSES					$	49751.
SALARIES	8219.29					
HEALTH INSURANCE	402.02					
SOCIAL SECURITY	322.67					
EMPLOYEE'S RETIREMENT	430.00					
SUPPLIES AND OTHER	1138.08					
WAREHOUSING COSTS	120.00					
MACHINE RENTAL & EQUIP.	579.07					
TOT. OPERATIONS EXP.		$	11211.13		$	73360.
NET LOSS FROM OPER.		$	4668.41		$	23608.
OTHER INCOME	0.00					
MISCELLANEOUS	124.71					
INTEREST	0.00					
REFUND — PRIOR YEAR'S EXP.	5499.33					
STATE AID		$	5624.04		$	30079.
TOTAL OTHER INCOME						
NET PROFIT		$	955.63		$	6470.

Figure 8:7 **Sample Report Generated By Microcomputer Software Concerning Food Service.**

Summary

This chapter described why and how a management information system is such an important component of any educational organization. Emphasis was placed on a microcomputer-based MIS because of the technologial and operational advantages micros now bring to MIS. The discussion stressed not only the hardware and software applications, but also the importance of human aspects considerations of MIS. Finally, with the presentation of specific examples of applications of a microcomputer-based MIS, the chapter demonstrated the range of use and potential for increasing efficiency and cost-effectiveness of school district business management operations.

NOTES

1. Much of the material in this section has been adapted from: Murdick, R.G., and Ross, J.E., *Information Systems For Modern Management*, 2nd Edition, Englewood Cliffs, N.J., Prentice-Hall, Inc., 1975.

2. See also, *Administrative Uses For Microcomputers, Volume 2: Hardware*, ed. F.L. Dembowski (The Association of School Business Officials International, 1984).

3. See also, *Administrative Uses for Microcomputers, Volume 1: Software*, ed. F.L. Dembowski (The Association of School Business Officials International, 1983).

4. See also, *Administrative Uses for Microcomputers, Volume 3: Word Processing and Office Automation*, ed. F.L. Dembowski (The Association of School Business Officials International, 1984).

9

School District Financial Management and Banking

Frederick L. Dembowski and Robert D. Davey

The purpose of this chapter is to introduce the major aspects of school district cash management and banking programs and to discuss how effective cash management systems operate in public school districts. Cash management, an important part of school business management, is the process of managing the moneys of a school district to ensure maximum cash availability and maximum yield on investments. Cash management is concerned with the utilization of investments of revenue. Specifically, cash management is concerned with four activities: (1) the conversion of accounts receivable to cash receipts; (2) the conversion of accounts payable to cash disbursements; (3) the rate at which cash disbursements clear the bank; and (4) maximizing the utilization of cash.

It should be noted by the student of school business management that this chapter addresses cash management for school districts which are fiscally independent of other governmental agencies. In many states, e.g., Connecticut and Virginia, other governmental agencies control the cash management on a city or county basis depending on the local form of government. In several states the practice varies based on classification schemes of school districts. Generally, in fiscally dependent school districts, the school business administrator presents claims or warrants to the other governmental agency for payment. The town or county manages the investments along similar lines as discussed in this chapter. The school district, however, is usually not involved in such activities.

Goals of Cash Management

There are a number of financial and nonfinancial goals of cash management. The three major financial goals of cash management are:

- Availability. To ensure cash availability (liquidity) to meet daily needs and to increase cash available for investment purposes.
- Yield. To earn the maximum return on cash invested.
- Safety. To protect the assets of the school district against loss.

These goals conflict to the extent that cash invested may not be readily available to meet current obligations, and that the interest rate available on investments increases with the risk. Since bills must be paid and risk should be minimized, the yield goal is necessarily secondary. However, the timing of cash inflow and outflow may be manipulated to favorably affect yield.

There are a number of additional financial goals which include the minimization of the costs of the cash management process in terms of monetary and labor costs. Generally, minimization of borrowing is necessary, unless such borrowing is advantageous to the district, such as through arbitrage as discussed later in this chapter.

The nonfinancial goals of a school district, while not lucrative, play an important fiscal role in the management of the school district. The nonfinancial goals of cash management include; promoting favorable business relations with vendors and banks, ensuring the orderly conduct of the financial aspects of a district's operations and building the trust and goodwill of the community.

A sound cash management program may be classified into eight elements. The elements are interrelated, and when properly coordinated, the attainment of the financial and nonfinancial cash management goals are enhanced. They may be divided further. The first element is the administrative framework. Such a framework is necessary to attain the financial goals of availability and yield. The next four elements are concerned with cash availability. The elements of the cash management program may be classified as: cash budgeting, cash information and control systems, collection and disbursement procedures for cash and borrowing. When successfully managed, these elements promote maximum availability of cash for a district's financial operations. The final three elements of a school district's cash management program are concerned with the goal of maximizing the potential yield. These elements are a working knowledge of financial institutions, a working knowledge of investment securities and a working knowledge of investment strategies. The full potential of a successful cash management program may be attained when all eight elements of a cash management program are established and skillfully utilized by the school business administrator.

Administrative Framework of Cash Management

The administrative framework encompasses the development of a policy as well as the legal and procedural requirements for developing an effective cash management program on a day-to-day basis. In order to achieve its cash management goals, a school district must develop the following:

- An interpretation by legal counsel on relevant federal and statutory guidelines that affect the operation of a cash management program.
- A written district policy approved by the board of education governing the conduct of the cash management program.
- A process for maintaining a cash investment consolidation account consisting of the cash balance of different funds and accounts.
- An on-going evaluation process that reviews progress throughout the fiscal year and provides appropriate performance data.

States have a number of restrictions on cash management activities of local school districts. Generally, statutory guidelines restrict cash management in three areas: 1) stipulating the dates and procedures to be followed in collecting or receiving taxes and fees; 2) restricting the types of securities and obligations for investments and borrowings; and 3) the types of financial institutions with which local districts may do business.

A school district should establish a written statement which defines the district policies relative to cash management. Generally, a board of education policy should include the following:

- The delegation of authority for the cash management activities to one official.
- A listing of the types of investment instruments in which the district may invest.
- The criteria for selecting the district's depository bank(s).
- The specification of the frequency and types of financial reports that must be submitted to the board.
- Local district limitations on cash management.

From the school business administrator's viewpoint, care should be exercised in writing a policy statement. While the detailed specification of policies, constraints and limitations is necessary, the specification of administrative and clerical procedures should be avoided and left to the discretion of the administrative personnel.

The consolidation of cash accounts often involves the "pooling" of cash resources of cash accounts of separate funds into one or a few bank accounts for investment purposes. These accounts often are called clearing, zero-based or consolidation accounts. Pursuant to state statutes, pooling need not be restricted to a single school district. Sound school business management dictates that districts investigate the establishment of pooling arrangements with other school districts as well as other governmental units. Some states have established statewide pooling arrangements. Other states have established mutual or trust funds for investment purposes. There are many advantages to pooling: it permits larger investments often resulting in higher interest rates; it tends to reduce fluctuations in the cash flow; it simplifies the investment process; and it reduces paperwork. Under a typical pooling operation, accounting procedures record each transaction.

The evaluation of cash management performance completes the administrative cycle. The school business administrator can determine the success of the program and establish a basis for developing future objectives. Many factors affect the net rate of return of a school district's investments. The external factors include current market conditions and the size and wealth of the school district. The internal factors include the mix of the investment instruments and the expertise of the school business administrator. The current rate of interest on investments has the greatest impact on the rate of return to cash management. A higher rate of interest generates a higher rate of return. However, interests rates vary greatly over time, and vary according to type and maturity of the investment.

The size and wealth of the school district also have a considerable effect on the rate of return to school district cash management. There are scale effects in the rates of return. Generally, the larger the school district, the larger the cash flow; hence, the larger the cash surplus available for investment. This problem is further exacerbated by banks paying a premium through higher bids for the use of large amounts of cash. Thus, a bank may bid only 9 percent for a certificate of deposit for 90 days on $100,000 while they may bid 9.5 percent for a 90 day certificate of deposit on $1 million. Thus, the school business administrator works toward maximizing these scale effects to the district's advantage.

Additionally, the assessed property value of a school district affects the results of cash management. The wealthier the school district, the greater the possibility for school district investment activity. School district revenues consist primarily of local property tax and state aid receipts. The property tax receipts are based on the school district's assessed valuation. Obviously, the higher the expenditure, the higher the potential surplus cash balances available for investment. However, the effect of wealth on the state aid receipts is more direct. Due to fiscal equity considerations, poorer school districts receive a greater proportion of their total expenditures through state aid allocation formulas. Thus, the poorer the district, the more revenues it receives in state aid.

State aid payments vary from state to state as does the date when school districts receive their local property tax revenues. Based on state procedures of allocating state aid either on a semi-yearly, quarterly or monthly basis and the method of distributing local payments, districts will have different methodologies for investment of excess revenues.

The external factors also have an effect on the cash management program of the school district. Obviously, the use of different types of investment instruments will affect the rate of return. This is because the interest rate of each instrument or security varies with the degree of risk inherent in the instrument. For example, an investment in commercial paper carries greater risk than an investment in U.S. Treasury Bills because it is less likely that the U.S. Government will default on its loans. Generalities about interest rates, however, are difficult because the term structure of interest rates varies greatly over time.

Finally, the cash management rate of return will differ depending on the sophistication of the cash management techniques. While the development of a cash flow schedule for cash planning purposes will enable the school business administrator to develop a set of investments for the district, the use of advanced computerized techniques will most likely result in higher net interest earnings while observing the guidelines of liquidity and safety.

The final topic in the discussion of the administrative component of cash management is concerned with the establishment of a standard of performance. For a number of reasons, the rate of return typically used to judge cash management performance is not a valid measure. Since the conditions of cash management programs vary according to state statutes, the establishment of a desirable rate of return cannot be determined. Nevertheless, as a general rule, a rate of return of 1.5 percent of a district's total expenditures should be attainable by a typical school district.

Cash Budgeting

Cash budgeting involves the estimation of receipts and disbursements to determine cash requirements and to develop a cash management strategy. Cash budgeting answers the questions: 1) When are cash receipts expected? 2) How long will cash be available or when will it be spent? 3) Is borrowing required? 4) Are there opportunities for investment?

Cash budgeting differs from the traditional revenue and expenditure budgeting process because it is primarily concerned with the timing of the receipts and disbursements of the school district; it is not concerned with the paying of bills, but the investment of moneys. The traditional budgeting process is concerned with the amounts and sources of revenues, as well as the determination of anticipated expenditures. This budgeting process usually precedes the cash budgeting process.

While the traditional revenue and expenditure budgeting process culminates with a budget document, cash budgeting is a continual process with periodic updates.

Cash budgeting is important to an effective cash management program because detailed knowledge of the timing and amounts of cash receipts and disbursements allows the school business administrator to utilize an informed approach in designing an investment and borrowing strategy. Cash budgeting is also important in gathering the necessary information to develop financial position statements needed to borrow funds, especially borrowings based on future assets.

An important tool in cash budgeting is the cash flow schedule. A cash flow schedule may be as simple as a table which lists the total expected receipts, disbursements and net balances by month (see Table 9:1) or as detailed as a listing of receipts and disbursements by fund and source on a weekly or even daily basis (see Table 9:2). In constructing a cash flow schedule, a time frame must be selected. Additionally, the school business administrator develops a cash flow schedule for the fiscal year. By including all major receipts and disbursements for the entire year, this annual schedule will indicate periods of major borrowing and investment requirements. Once an annual schedule has been developed, cash flow schedules for smaller periods (i.e., biannual, annual, monthly, biweekly or weekly) may be developed. In general, the shorter the time horizon, the more time consuming and costly the cash budgeting process. Thus, the school business administrator must weigh the costs and benefits to the district of a detailed cash budgeting process.

A second decision essential to cash budgeting is the level of specification in developing the cash flow schedule. The school business administrator must decide on the level of aggregation, i.e., moneys available for investment, in specifying the cash receipts and disbursements and the time interval for reporting.

Illustrated in Table 9:1 is a cash flow schedule in which the school business administrator has made the following decisions: 1) the annual cash flow schedule represents a fiscal year with the data reported by monthly intervals; and 2) only total monthly receipts and disbursements are reported with no specific breakdown of the data.

In contrast, Table 9:2 reflects a three-month cash flow chart with receipts and disbursements grouped into major categories reported on the day of anticipated receipt or disbursements. Thus, the school business administrator is able to make more precise estimates of the cash needs of the district. There are a number of microcomputer programs available that perform these calculations, and the electronic spreadsheet software programs may be used to do a wide range of the cash management functions described in this chapter.

In order to develop a cash flow schedule, the timing and amounts of the cash receipts and disbursements of the district must be anticipated. Since historical cash flow information is invaluable for this purpose, accurate records of the dates and amounts of major receipts and disbursements of the district must be kept.

As discussed, school districts receive the bulk of their revenues through local property taxes and state aid payments. These payments result in substantial amounts of cash flowing into the school district's accounts at certain times. The timing and amounts of state aid payments vary from state to state. The timing and amounts of these receipts can be readily determined in advance with a high degree of certainty, thus enabling the school business administrator to develop cash flow schedules.

TABLE 9:1 Cash Flow Pattern Of A Sample District

Period **Month**	**0** **Jan. 1**	**1** **Feb. 1**	**2** **Mar. 1**	**3** **Apr. 1**	**4** **May 1**	**5** **June 1**	**6** **July 1**	**7** **Aug. 1**	**8** **Sept. 1**	**9** **Oct. 1**	**10** **Nov. 1**	**11** **Dec. 1**	**12** **Dec. 31**
Inflow	400	250	400	150	100	50	50	50	150	400	400	50	0
Outflow	200	200	200	200	200	400	100	100	200	200	200	300	0
Netflow	250*	+ 50	= 200	− 50	− 100	− 350	− 50	− 50	− 50	+ 200	= 200	− 250	0

Notes: Revenues are received by the district on the first day of the month.
Expenditures occur on the first dya of the month.
*Beginning cash balance of the district on the first day of the year is $50,000.

In addition to revenues, expenditures may also be anticipated. School district expenditures consist primarily of salary and fringe benefit expenses. The typical school district budget allots more than seventy-five percent of the expenditures for this purpose. Generally, these expenditures may be anticipated very accurately, since spending patterns of most school districts is quite stable. For example, debt service and utility payments may also be projected through degree day calculations and by reviewing debt service amortization schedules.

TABLE 9:2 Sample Cash Flow Chart
for the period July 1 to October 1

Date		Explanation	Estimated Expenditures	Estimated Revenues	Running Balance
July	1	Opening cash balance (not fund balance)	$	$	$ 247,000
	14	Payroll	37,000		210,000
	28	Payroll	40,000		170,000
	31	Bills	30,000		140,000
Aug.	1	Debt, Principal & Interest	63,000		77,000
	11	Payroll	37,000		40,000
	15	Bills	40,000		0
	25	Tax Anticipation Note		400,000	400,000
	25	Payroll	40,000		360,000
	31	Bills	50,000		310,000
Sept.	1	Dept. Principal & Interest	63,000		247,000
	1	Payroll	200,000		47,000
	10	Bills	40,000		7,000
	15	State Aid		350,000	357,000
	15	Payroll	200,000		157,000
	20	Bills	60,000		97,000
	29	Property Tax		1,400,000	1,497,000
	29	Pay TAN	400,000		1,097,000

Figure 9:1 presents a simplified revenue and expenditure pattern of the hypothetical school district cash flow listed in Table 9:1. In this example, October and January revenues are large because of property tax receipts, while November and March receipts reflect state aid payments. The expenditure for most months is stable at $200,000 per month, with a high in June and lows during the summer months. Because of differences in the timing and amounts of revenues and expenditures, the school district experiences periods of surplus revenues over expenditures. January through March are periods of surplus cash. From April through October, however, the school district has more expenditures than revenues. The primary task of the school business administrator is to determine what borrowing and investment decisions should be made. If investments or borrowing is necessary, the issues of timing, amount and maturity need to be addressed.

The school business administrator should approach the planning task by first determining the *net cash flow.* The net cash flow is determined by subtracting the monthly expenditures from the revenues. A positive net cash flow indicates a cash surplus. A negative net cash flow indicates a cash deficit.

Table 9:1 presents an example of the monthly cash flows in tabular form. The month of January has a net $250,000 cash surplus. This cash would be invested in

interest bearing securities, e.g., a certificate of deposit. Since the month of April has a cash deficit of $50,000, an investment of $50,000 should be made from January to April. Another $100,000 would be invested from January to May to cover that deficit, with the remaining $50,000 surplus from January being invested until June. Because revenues equal expenditures in this example, this process will be followed until July when all surplus cash is invested to mature during the months of cash deficit situations. Despite all revenue being allocated, the school district would need $50,000 in July to meet expenses. This deficit situation continues until October when the property tax revenues arrive. By that time, the district will have accumulated a deficit of $150,000. To meet this deficit the school district must borrow $150,000 in anticipation of future revenues, e.g., a tax anticipation note. In October, sufficient revenues will allow for the repayment of the tax anticipation note, as well as to allow for the investment of an additional $50,000. Thus the investment process starts again.

This cash budgeting process begins with the development of a cash flow schedule. The cash flow schedule is assembled from the data provided by the accounting records and the budget from the previous fiscal year. Once the cash flow schedule is developed, the school business administrator may make decisions as to when, if any, investments and borrowings need to be made during the fiscal year. The actual process of making these investing and borrowing decisions will be discussed later in this chapter.

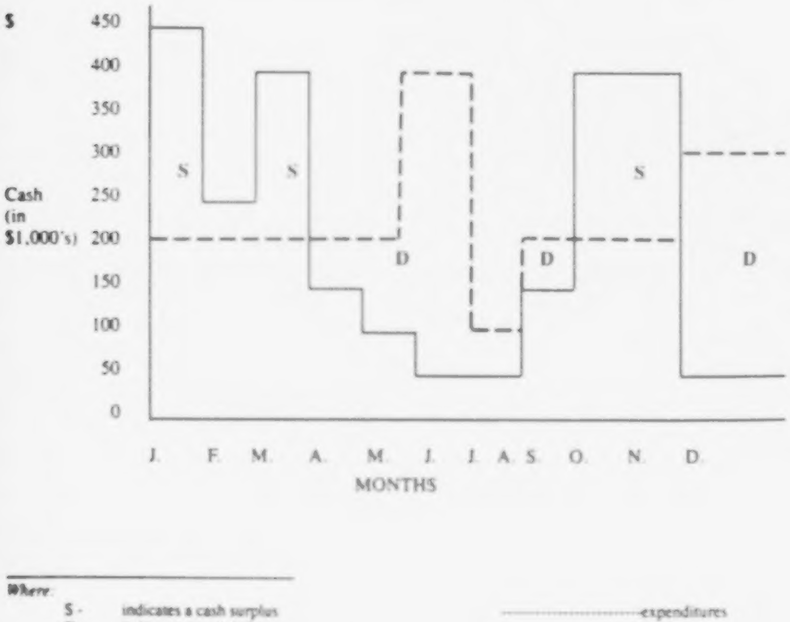

Figure 9:1
Cash Budget and Cash Flow Pattern of a Sample District

Cash Information and Controls

An effective cash information and control system is required to process the information to help the school business administrator meet the program objectives. The information required to control the cash management process includes data on the cash balances in the various depository accounts of the district, as well as the anticipated current revenues and expenditures. A good cash information and control system includes three types of records: 1) those that record financial events, i.e., a record of investments made; 2) those that assist in making investment decisions, i.e., the current cash balance by account; and 3) those that permanently account for cash by fund.

Cash information and control systems typically consist of a formal and informal system. The formal system consists of accounting processes that systematically record the appropriate data. A cash accounting system accounts for the daily receipts and disbursements and provides cash balances by fund and account as well as ther daily average cash balances. A cash budget reporting system should be implemented to provide a budgeted versus actual record of receipts and disbursements. This system provides information to update the cash flow schedule and to evaluate the school business administrator's forecasting abilities.

An investment status and earnings system is useful in providing a summary performance record of cash management activities. Three key sets of information on investment transactions recorded by this system are the purchase (date, amount and rate), the sale (date and amount) and the maturity and interest. A similar record system, the earned interest apportionment system, is required to record the amount to be redistributed to the accounts and funds which contributed cash for the principal of the investment.

A reconciliation system is required to provide the data to undertake a monthly reconciliation between the balance in the district accounting records and the actual cash balances in the bank accounts and other assets of the school district. The reconciliation usually follows the following basic format:

Ending Cash Balance = Cash in Treasury +
Investment Principal + Cash in Banks - Outstanding
Checks - Deposits Not Yet Recorded.

Finally, a performance reporting system is designed to provide the information required to assess how well the district cash management system is attaining the three objectives of liquidity, safety, and yield. Performance reporting warrants special attention to procedure reports for those instances when an evaluation is required such as when estimating interest received during the budgeting process.

A well administered cash information and control system also has an informal system consisting of sound working relationships with responsible officers in the various departments of the school district. The main function of this informal system is to provide information on anticipated cash flows of which the school business administrator may be unaware. In addition it should generate information concerning current market conditions, vendor relations and the like.

Cash Collection and Disbursement Procedures

Cash collection, deposit and disbursement procedures are important factors in assuring the maximum availability of funds to meet cash needs for payment of bills and for the investment of funds. The development of procedures to bring revenue into the district accounts as soon as possible and keep those dollars as long as possible can mean a significant increase in earned investment dollars. To ensure that these processes will contribute to the achievement of a district's cash management goals, a school district needs:

1. Revenue collection policies and procedures for each major source of revenue.
2. Special deposit procedures to handle major revenue processing problems such as tax collections.
3. Disbursement policies and procedures for each category of expenditure and vendor.

Deposit Procedures

Deposit procedures affect the rate at which money already on its way to the school district is deposited into a bank account. Pursuant to state statutes, most school districts collect the state aid checks via wire transfers or courier instead of having them mailed. The significance of this practice is underscored by its financial impact. For example, within a three day period a $2 million state aid check were in the mail a district could have earned $2,466 less the cost of transfer by investing the funds at fifteen percent interest.

There are a number of special arrangements that may be made to speed up deposits. Pursuant to state statutes many banks accept direct deposits under a lock box system. A lock box service accelerates the district's cash flow from tax receipts by processing payments received, usually on a daily basis. Mail payments are often picked up at the post office box reducing "mail float" and delivered directly to the bank's processing center. Often, the main bank will continue to process that day's payments even after its branch system has closed for the day.

Most states have state-wide banking systems allowing for the depositing of funds in branch offices of the depository bank which accelerates the collection and deposit process. For example, a school district located far from the state capital may direct the state education department to tender their state aid check to the branch office of their bank in the state capital, thereby, avoiding the "mail float."

As mentioned, the wire transfer is another widely used method of transferring revenues into district accounts. Money transfer requests can be received from a number of sources. Because of risks associated with the processing of wires, items must be tightly controlled. All requests are first routed to a pre-processing center. The center is responsible for preparing all payments for transmission and forwarding them to the processing area. The steps required to prepare the transfer include:

1) Checking all requests for authenticity.
2) Identifying credit and debit parties.
3) Deciding on the method of payment.
3) Checking for availability of sufficient funds.
5) Indexing and obtaining authorized approval.

The payments processing area is responsible for the actual transfer of funds. Each transfer is on the Automated Funds Transfer System (AFTS) and verified by a second series of checks. Member banks of the Federal Reserve System are able to utilize their own wire transfer system, the Federal Interface System (FIS), to send a Federal Funds Transfer. Transfers are transmitted through FIS to the money transfer system of the bank involved. The deadline for Federal Fund Transfers is 4:30 P.M. for all transfers. Thus the arrangements for the wire transfer must be made earlier in the day with the sending bank. Most banks also have time deadlines, so the school business administrator must become familiar with these.

Disbursement Procedures

There are also a number of methods which may be used by school districts to manage the disbursement process in a manner favorable to the district's cash management program. From the cash management standpoint, disbursements should be timed so that they remove cash from the district's accounts at the last possible moment. However, this incentive must be tempered by the need to pay bills in a timely fashion. Unhappy vendors may raise prices, perform poorly or require excessive administrative time in responding to complaints.

In nearly every state only a board of education may authorize actual payment of bills. Normally, boards of education examine warrants for payment once a month to ensure public accountability. This process may be utilized for sound cash management. An effective system schedules specific payroll and vendor payment days each month. An accounts payable system which allows the payables to "age" before payment will improve disbursement control. As invoices are received, they are analyzed and a payment date affixed prior to board of education approval. After the board of education has approved all payments, they are paid on the pre-assigned payment date. Some factors that affect the payment date are: discounts available, the past history of a vendor requiring immediate payment and the method of payment (mail or hand delivery). Discounts may result in significant savings.

Depending on state statutes, warrants may be used to improve cash availability in certain instances. A *warrant* is a promise to pay a sum of money at some future date on presentation to the issuer. Under a warrant system, funds need not be available until the date the warrant is presented back to the issuer for payment. The warrant system is used in particular in fiscally dependent school districts where the warrants are presented to the controlling governmental authority for payment. One disadvantage of the warrant system is that banks usually charge higher handling charges for warrants than checks.

A final issue of importance in discussing disbursements is the direct deposit of payrolls. In direct payroll deposit, the district enjoys favorable employee relations because it is easier for the employees to access their money. Banks like direct payroll deposit because it brings them new customers and increases their cash balances. However, from a cash management standpoint, direct deposit of payroll is unfavorable to the school district because it accelerates the flow of cash from the district accounts, thus shortening the time available to the district for investing the cash.

The following example illustrates the negative financial impact direct payroll deposits can have on a district. A school district pays its employees on Friday afternoon every two weeks for a total payroll of $200,000. Under a direct payroll deposit system, all $200,000 leaves the district's accounts on Friday afternoon. However, an analysis of the bank statements of the payroll account of the school district for the prior fiscal year reveals the cash flow pattern as reflected in Table 9:3. On the paydays, only 25.5 percent of the paychecks were cashed and cleared the bank, leaving 74.5 percent of the payroll in the checking account over the weekend. On Monday night, another 31 percent of the payroll checks cleared the bank and so on. If the school district had a policy to leave only 30 percent of the payroll in the checking account to cover Friday's checks, it could have placed the remaining $149,000 in a three-day investment with the bank. Such an investment typically earns a relatively high rate of interest. In this case, assuming a 15 percent interest rate, the school district, could have earned $186.15 every two weeks or over $4,000 during the fiscal year. Thus, a direct payroll deposit system would need careful consideration before being established.

Table 9:3 Payroll Disbursement Pattern
For A Sample School District

Day	Checks Cashed	Percent Cashed
Friday	$ 51,000	25.5
Monday	62,000	31.0
Tuesday	33,000	16.5
Wednesday	8,000	4.0
Thursday	5,000	2.5
Friday	5,000	2.5
Monday	20,000	10.0
Tuesday	9,000	4.5
Wednesday	5,000	2.5
Thursday	2,000	1.0
Total	$200,000	100%

Borrowing

There are times when a school district may require cash in excess of anticipated revenues. At such times, the district needs to borrow money. There are a variety of ways to borrow. Long-term borrowing provides the school district with a large sum of money, usually for a specific purpose, such as the construction of a building which is paid off over a specified period of years. Long-term borrowing, and the ancillary topics of capital debt management, are covered in another chapter of this text. Short-term borrowing allows the district to meet current obligations for a period prior to the receipt of anticipated cash. Both types of borrowing are an integral part of a sound cash management system.

The purpose of short-term borrowing is to provide sufficient cash for the school district to meet its current obligations during an interim cash deficit. The cash is usually borrowed in anticipation of revenues expected in the near future. Short-term borrowing is avoided by many school districts, possibly because of stringent statutory restrictions and because of the negative connotation that borrowing has traditionally held. However, short-term borrowing should be considered an important tool in the cash management program, as it offers opportunities for net interest earnings for the school district.

Although state statutes vary, there are generally five types of short-term borrowing available to school districts:

1) *Revenue Anticipation Notes (RAN).* Used for general purposes in anticipation of collected revenues other than property taxes (i.e., state aid).
2) *Tax Anticipation Notes (TAN).* Used for general purposes in anticipation of taxes or assessments levied.
3) *Bond Anticipation Notes (BAN).* Issued when bonds have been authorized and generally used only for the same object or purpose for which the proceeds of the bond may be expended.
4) *Budget Notes.* Used to provide revenues during the fiscal year for any unforeseeable public emergency. These notes are usually paid off with additional taxes collected in the following fiscal year.
5) *Capital Notes.* Used to finance all or part of the cost of any object or purpose for which serial or sinking fund bonds may be issued. Capital notes are usually issued for a specified period.

The use of short-term borrowing is usually restricted by statutory law. Most states have limitations on the pay back period, the amount and the reinvestment opportunities of borrowed funds. The pay back periods vary widely from state to state with the most common pay back periods being either before the end of the fiscal year in which funds were borrowed or six months. However, many states authorize longer pay back periods for specific short-term obligations. For example, Texas allows budget notes and contract obligation notes a pay back period of twenty-five years. Many states also limit the amount which may be borrowed on a short-term basis. Again, these restrictions vary from state to state and according to the particular obligation used. The Federal Government also has regulations governing short-term borrowings and arbitrage. Normally TANs and RANs limit the loan amount to 75 to 80 percent of the anticipated revenue. Some states allow 100 percent of the anticipated revenues to be borrowed, while others allow only 25 percent.

Arbitrage

The majority of states allow borrowed moneys to be reinvested until needed for current obligations. This practice offers school districts the opportunity to earn net interest over the cost of the borrowed cash through investment. States allow this because interest rates available to school districts on borrowed cash is usually substantially less than the rates available through investments. This differential in interest rates exists because cash loaned to school districts is tax exempt, and lending institutions can offer lower interest rates on loans to school districts because of this tax savings. The point spread or difference between the borrowing and investing rate offers school districts the opportunity to gain money by borrowing and then investing a portion of the proceeds. This practice is commonly referred to as "arbitrage."

Consider the following example of *arbitrage*. The school district whose cash flow is displayed in Table 9:1 will experience an anticipated cash deficit of $150,000 during the months of July, August and September. The school district realizes that it will have a sufficient revenue surplus ($200,000) flowing into the school district in October to pay back the TAN to cover this deficit. The school district is able to borrow the needed $150,000 through a local bank for 10 percent annual interest. The current rate of interest on investments is 15 percent annual interest. The school district has a number of options. The first option is to borrow the $150,000 on July 1, and pay it back on October 1. In this case, the school district would use $50,000 to cover the deficit in July and invest $50,000 for two months to cover the September deficit. It could pay back the TAN on October 1. Thus, the school district would earn $1,875 in interest on investments, but pay the bank $4,748.50 on the borrowed cash, with a net cost to the district of $4,873.50.

However, the school district has other options. Suppose that the school business administrator read the arbitrage regulations of the state carefully and discovered that the deficit cash can be legally borrowed at the beginning of the fiscal year in which the anticipated deficit will occur, and does not have to be paid back until the end of the fiscal year. Further, the law states that the school district may legally borrow one month's expenditure to the anticipated expenditure of the month immediately following the last month of the cash deficit period in addition to the anticipated deficit. (This hypothetical law is modeled after 1984 New York arbitrage regulations.)

Based on this law, the district's school business administrator who is anticipating a deficit of $150,000, determines that the average expenditure for the month following the last deficit period (October) was $200,000 and, therefore, decides to borrow $350,000 at the beginning of the fiscal year (January 1) at a rate of 10 percent. He then immediately invests $200,000 of the loan amount at 15 percent interest until December 31 since it was only needed as a reserve. In this example, the school district would earn $75,625 on investments and have to pay back $35,000 in December on the borrowed cash, for a total earning of $40,625.

School districts are not the only beneficiaries of the arbitrage process. Nevertheless, arbitrage is a good example of how certain cash management practices benefit other publics as well. For example, it can be assumed that as a result of arbitrage taxpayers pay less in taxes. Banks often favor the process because: 1) the interest paid on the investment is tax deductible as a cost of doing business; 2) the interest earned on the note borrowed by the school district is tax exempt, which may result in a much higher effective yield to the bank than the current annual rate; and 3) the note may be used by the bank as collateral for other investments of the school districts in the area. The conditions, however, under which banks favor arbitrage are dependent on current market conditions and the balance of the bank's portfolio between taxable and non-taxable securities.

It is no wonder that due to the tax exemptions and deductions offered banks, that the Federal Government and particularly the IRS have strickly monitored the arbitrage process, for it is the Federal Government which loses tax revenues in the end.

Local v. Major Money Markets

School districts may borrow for short-term deficits through the local market or through a major money market. In borrowing through the local market, the school district obtains a legal opinion from a local legal firm and markets its borrowing securities through a local bank. When borrowing through the major money markets, securing appropriate legal counsel is critical. Legal firms which are recognized as experts in bonding are listed in the *Bond Buyers Directory.* The recognized legal opinion on a bond or note will facilitate the competitive sale of municipal securities, often resulting in a more favorable rate on the bond.

An important marketing tool of bonds is the issuing of a printed "Official Statement" providing full disclosure of operations and pertinent information. The official statement facilitates the marketing of securities to potential investors. Once written, a yearly update is relatively simple and inexpensive.

Banks buy these securities at a risk position. This means that the rate quoted on the security is what the bank projects it can market at a profit. The profit is the spread between the rate the municipality will pay and the rate of return a buyer is willing to accept when purchasing these tax exempt securities. This risk position of the bank is another reason for the use of the official statement.

Early notification to the bank that a school district is going to borrow in the near future allows the bank to promote the issue and establish a pre-sale list of buyers. The more successful the pre-sale effort, the less risk to the bank and the more aggressive the bank will be, resulting in a more favorable rate to the school district on its security.

Early notice to the bank on the timing of a school district's borrowing needs could result in the avoidance of an unfavorable marketing environment for the district's notes. For example, a school district in a rural area of a state may need to borrow $1.2 million for six months and decide in advance to offer these notes for sale on a given date. If the school district's financial adviser knew that the largest city in the state was intending to market $50 million for a municipal project on that same day, he or she might decide to market the district's notes one week earlier to obtain a more favorable rate and service. By being issued on the same day as the large city, the school district's notes would be placed in an unfavorable marketing position, since the banks would stand to make more on the larger issue.

Districts using local legal opinions to market their notes should understand the effects of these loans on a bank's investment portfolio. Municipal notes yield a substantially reduced rate of return to a bank because of their tax exempt status. The benefit of this type of security to a bank fluctuates constantly depending on the current structure of the bank's portfolio. Due to the nature of the market, notes with local legal opinions are more difficult to sell to buyers of tax free securities than the securities with legal opinions from the recognized bonding firms. Depending on the size and current portfolio status of the bank, these notes may or may not be desirable.

The school business administrator should contact the banker as soon as the borrowing needs of the school district are determined. This allows the bank time to obtain the necessary financial documentation required for credit analysis and approval to loan the moneys. Generally, the information needed for these purposes includes the current budget, the latest audit report and, for RANs and TANs, a cash flow schedule covering at least the term of the note. The information needed for the credit analysis includes the year-end fund balance of the operating fund, the appropriated fund balance in the current year's budget, revenue projections showing the source to be used for the repayment of the loan and the cash flow deficit used to justify the amount to be borrowed according to arbitrage regulations.

Negotiated sales are an alternative to the formal bidding process. The market rate for this paper is a gauge for the actual bid rate that may be substantially higher or lower because of the circumstances at the time of the sale. The school district's business and the depository balances in a bank offer school districts leverage in negotiating with lending agencies. Effective use of this leverage can yield substantially reduced rates on borrowing, often lower than can be obtained by going through the major money market or formal bidding process.

In summary, short-term borrowing may reflect sound school business management. It is a valuable cash management tool, and if used wisely, it can result in net interest earnings to school districts.

Investing

As with borrowing, the investing practices of school districts are strictly regulated by statutory law. The school business administrator has a compendium of the laws, legal opinions and comptroller opinions that regulate this process. Only within the scope of what is legally permitted for investing do the other considerations of risk, liquidity and yield apply.

Risk

The risk of financial loss must temper all school district investment practices. Even where legally permitted, high risk or speculative investments should be avoided because it is taxpayer money at risk. To reduce the risk of default or loss, many states require collateral on all school district investments. This *collateral* requirement varies from state to state. The Federal Deposit Insurance Corporation (FDIC) insures the first $100,000 of all deposits. However, this $100,000 insurance is for all the deposits of an entity, not $100,000 on each individual deposit or security. Banks bid lower on investments that require collateral because it costs the banks to maintain assets as collateral instead of using them for other more lucrative purposes.

In order to ensure that the district's investments are secured by collateral, the school business administrator would insist on receiving written documentation regarding the collateral securities. A prudent school business administrator will insist that the principal of any investment be secured at all times for the period of the investment at 100 percent of current market value in legal governmental obligations, and that these collateral securities are held in trust for the school district in the trust department of the depository bank or by a third party, such as another bank. Further, the school business administrator should receive from the third party a letter stating the types, dollar amount, date received and date due of these securities, as well as a statement regarding who holds title to these securities. In the event of a collapse of the bank which has the investment, these collateral securities may be immediately liquidated by the school district, thereby maintaining the integrity of the investment. The district may then file a claim for any interest due on the investment in the bankruptcy hearing. Some states, such as Kentucky and Mississippi, require more than 100 percent collateral on all investments.

Liquidity and Yield

Once the legality and risk of an investment are understood, the school business administrator would next consider liquidity and yield. Liquidity is the ability to quickly convert a security to cash without the loss of principal or accrued interest. School business administrators always include some highly liquid securities in the district's portfolio to be assured that all bills will be paid on time in the face of some unanticipated cash deficit.

The yield of the investment varies with the type of security. Competitive bids for comparable investments may indicate the different yields available in the securities market. For example, comparable certificates of deposit may be purchased at different banks at yields depending on the banks' need for cash. At least five other factors affect the yield of an investment. Generally, the yield is higher when:

1) The maturity date is further away.
2) The risk is greater.
3) The liquidity of the investment is less.
4) The investment is greater.
5) The investment does not require collateral.

A wise school business administrator is cautious when the basis point spread between the bids received is relatively large (i.e., 100 basis point or 1 percent annual percentage rate APR). While there are a number of legitimate reasons why the bidder may need the cash, such as meeting the Federal liquidity requirements or to balance the taxable versus non-taxable holdings in their portfolio, it is possible that the bidder needs the cash to stave off financial insolvency. Thus the higher bid may be designed to attract investors and to compensate investors for the additional risk of default in the transaction. Although it is very difficult to evaluate a financial institution's fiscal condition, a prudent school business administrator who is alert to signals such as high bids, should seek professional advice before making a decision. A number of firms offer analysis of the financial viability of securities firms and banks.

Each security has a defined method of calculating yield. The interest earned is either calculated on a 360 or 365 day basis, causing slight differences in actual interest earnings between bids on investments with the same maturity. For this reason, not only the interest rate, but also the net total interest earnings in dollars should be specified in a bid.

Types of Securities

There are many types of securities which school districts may use for investment purposes, and this list is continuing to increase. Many states limit the types of investment instruments school districts may use, and the use of each instrument may have unique restrictions. The specific regulations regarding the use of investment securities should be carefully explored and documented. Pursuant to state statutes, the more common investment instruments used by school districts are as follows:

Certificates of Deposit (CDs). A time deposit issued against funds deposited in a bank for a specified period of time, usually not less than 7 days nor more than one year. The minimum amount for a negotiable CD is typically $100,000. There are two types of CDs: a primary CD is purchased directly from the issuing bank, while the secondary CD is a negotiable CD already issued and traded on the open market. CDs have good marketability in the secondary market.

Repurchase Agreements ("Repos"). An investment in which securities, usually U.S. Treasury Bills, are purchased under an agreement to resell at a later date. A repo offers maximum security to the investor, since the government securities are literally owned by the investor as collateral until repayment at maturity. Maturities are generally short (1 to 60 days) but can be written for longer periods. Under certain conditions, repos are an ideal high quality investment for very short periods of time.

A reverse repo can be purchased when the investor is in need of funds. Under this agreement, the bank will purchase government securities under the agreement to sell them back to the investor at a later date for an agreed amount of interest. This can provide investors with significant flexibility in managing their cash position.

Until recently, the legal ownership of the securities in a repo have been at issue when the financial institution in the transaction has filed for protection against creditors under Chapter 11 of the Bankruptcy Code. However, recent revisions have legally characterized the repurchase agreement as the sale and repurchase of securities; and in the event of bankruptcy, the investor may liquidate these securities immediately and may not be subject to the automatic stay provisions pending the outcome to the bankruptcy hearing. The prudent administrator would have these securities held in a bank's trust department or by a third party.

U.S. Securities. U.S. Treasury Bills and Treasury Notes and Bonds are the two basic types of governmental securities. Bills are government guaranteed securities with maturities of one year or less. Bills are available with a minimum investment of $10,000 and in $5,000 denominations. The marketability of Treasury Bills in the secondary market is excellent. Since Bills are sold on a discount basis, the investor pays less than par value for the securities and receives par value at maturity, the difference representing the interest income. Treasury Notes and Bonds are direct obligations of the U.S. Government which are often available in $1,000 denominations, with maturities ranging from one to thirty years. Treasury bonds and notes also have excellent marketability.

Federal Agency Securities. A number of Federal Agencies offer investment securities, with the six major obligations being: Banks for Cooperatives (COOPS), Federal Intermediate Credit Banks (FICB), Federal Land Banks (FLB), Federal Home Loan Banks (FHLB), Federal National Mortgage Association (FNMA) and Government National Mortgage Association (GNMA). Only GNMAs are backed by the full faith and credit of the U.S. Government. However, the other agencies have the implied backing of the government. Maturities vary depending on the issuing agency. Marketability is excellent, but not quite as good as with Treasury Bills. In addition to the agencies listed, there are also several lesser known agencies which also offer high quality and good marketability.

State and Municipal Obligations. State and municipal governments offer a wide variety of tax exempt securities to finance their operations. BANs, TANs and RANs are examples of short-term notes with maturities of less than one year. The security of these notes reflects the credit quality of the issuing entity. Repayment is made from anticipated revenues.

Negotiated Orders of Withdrawal. NOW accounts offer the liquidity of the depositor account with the check writing privileges and the interest earning capability of the savings account. Most banks currently offer NOW accounts.

Money Market Accounts. These accounts offer liquidity and a variable interest rate that reflects market conditions. The MMA can be used effectively for funds where liquidity is a necessary ingredient particularly during periods of rising interest rates. MMAs have a limited number of withdrawals allowed per month.

Securities purchased from different types of institutions require different procedures. Most of these procedural distinctions center on the purchase and sale of the security. Questions to be answered concerning each transaction include:

1) Have the terms and the principal, discount and accrued interest amounts been confirmed and recorded?
2) Is it clear as to the description of the security in question?
3) Has the method by which the funds are to be delivered been specified?
4) Has the location where the security will be held for safe keeping been specified?
5) Has the place where settlement will take place been specified?
6) What bank accounts will be credited or debited as a result of the transactions?
7) Has a letter from the third party holding the securities and/or collateral been received?

Answering these questions will minimize excessive administrative complications and the risk of failure to complete the transaction.

Investment Strategies

An investment strategy would govern the actions that are taken in the day to day cash management program of a district. The strategy centers on the cash management goals of safety, availability and yield discussed earlier. The three most important factors to consider when developing an investment strategy are:

Amount of money available to invest. The cash flow schedule combined with information on current outstanding investments determines the forecast of the amount of cash available for investment.

Money market conditions. An analysis of the historical and present money market conditions helps forecast the expected increase or decrease in the yield rates of various types of securities.

Mix of securities. The cash control and reporting systems provide information about the current mix of investments (what investments have been made for what periods of time) representing the investment portfolio at the beginning of the investment strategy.

One investment strategy was implicity applied in the determination of investment amounts and maturities in the cash budgeting section discussed earlier. In that discussion, the net flow of the sample school district (see table 9:1) was determined and investments selected based on a manual determination of cash availability and need in later periods. This method is the most basic procedure for investing. However, it should be noted that because of the differences in the term structures of the interest rates, substantial amounts of interest earnings could be lost using this method. For example, if the school business administrator represented by Table 9:1 were concerned only with the period from January to June, he would have no need to borrow because during this six-month period, there are a number of opportunities to invest surplus cash.

The key question for the school business administrator to answer is, *"What investments should be made in order to maximize interest earnings while making sure that all bills are paid?"* Unfortunately, this question is practically unanswerable if manual methods are used in calculations. However, even if the optimal solution cannot be reached by manual methods, the results obtained by using the basic method discussed can be improved.

For such an improvement the following strategy would be used. In the cash budgeting section of this chapter, a simplified investment pattern was discussed. However, a number of important pieces of information were not revealed in that discussion. This information is primarily concerned with the interest rates available on investments. In the previous section it was disclosed that interest rates vary according to the maturity of the investment security. Generally, the longer the investment, the higher the interest rate. In this example, the school business administrator might call the local banker for the current interest rates on investments and determine that an investment in a CD of one to two months duration would earn an annual interest rate of seven percent, a three- to four-month investment would earn nine percent annual interest and an investment of five to six months would earn eleven percent. (Note the point spreads are exaggerated for purposes of this example. Much smaller differences should be expected in reality.) In this case, assuming the goal is to maximize interest earnings, the longer investments are made, the more interest will be earned. With differing interest rates, the school business administrator would most likely make investments as illustrated in Table 9:4.

Table 9:4
Long Range Cash Flow Investments

1) NP13 = $200,000 with interest = $9,167
2) NP24 = $ 50,000 with interest = $1,500
3) NP33 = $100,000 with interest = $2,250
4) NP32 = $100,000 with interest = $1,166
5) NP31 = $ 50,000 with interest = $291.50

Where: NPtk = All investments
NP = Notes Purchased
t = Number of the month the investment is purchased
k = The number of months later the investment matures
NP13 = Represents an investment made in the first month (January) maturing three months later in April
NP24 = Represents an investment made in February maturing in June

As a general rule it is wise to make investments for longer periods of time to take advantage of the higher interest rates. Thus, the school district could have earned a total of $14,374.50 in interest earnings. However, even this interest is not the maximum the school district could have earned as determined by computer simulation. The determination of the optimal investments strategy is often a complex problem for most public school districts.

While the development of a cash flow chart and the long term strategy of borrowing and investing of funds for the fiscal year is a major component of a sound financial management operation in a school district, of equal importance is the concept of *working capital management.* Working capital management is concerned with the day to day financial operations of the district. In this process, cash is usually found in either the checking accounts of the district, or in short-term interest bearing assets such as a savings account or repurchase agreement. Cash is transferred from the checking account to savings when not immediately needed. Thus, cash is treated as a stock of an inventory good. As such, cash may be manipulated by many of the same techniques that are used in inventory control. Many banks have computerized systems that can tell investors exactly how much cash is available for investment purposes, and the investment of the working capital of the district may be arranged on a daily basis using repurchase agreements and money market accounts.

Bank and School District Profitability

The methods of "profitability analysis" used by banks differ from bank to bank and change over time. A school business administrator should determine how his district depository bank conducts its analysis and how the district may use the bank's method to its advantage. School districts use banks for checking and savings accounts, as well as investment purposes. The bank incurs expenses in servicing these accounts. These expenses are primarily labor, computer and material costs of performing the various tasks required to service the accounts, such as check reconciliation, accepting deposits and check clearing. Banks are usually compensated for these expenses by requiring that a minimum or minimum average daily cash balance be maintained in a checking account and by charging an annual fee.

In order to set a fee and the compensating balance requirement, the bank performs a profitability analysis on the accounts of the school district. The expenses of servicing the school district's accounts for a period of time have to be determined. Once a bank estimates these charges or expenses of servicing the school district accounts, it then determines whether there is a net profitability for the bank by calculating the earnings allowance of the accounts. The earning allowance of the accounts accrues to the bank because the money sitting in the checking account may be partially invested by the bank in interest-earning assets.

The school district has several options when selecting a bank in order to ensure a cost effective banking relationship. Pursuant to state statutes, the school district can solicit bids or request proposals for banking services. Another alternative is to discuss the account analysis procedures with a number of banks before making a selection. However, the most important thing that a school business administrator should do is to ensure that the district's cash balances remain low by investing excess funds in interest-bearing assets.

There will always be excess cash in the checking account because of the "float." Float is a term used to describe the amount of cash in a checking account that remains after checks have been written but before these checks clear the account. In school districts, the float is typically large. A sound cash management procedure would be to leave sufficient cash in the checking account to cover the float plus the bank's compensating balance requirement. In this way, the district can invest the remainder of the cash balance in interest bearing assets, earning the highest rates of interest available.

To facilitate this type of cash management, the school district can take advantage of additional banking services. Most banks offer telephone transfers of cash between the checking and savings accounts, although this method of cash management has been made somewhat obsolete by the NOW accounts, money market accounts and computerized cash management systems. All large deposits of cash, such as state aid payments and tax receipts should be placed into interest bearing assets directly. For example, the daily interest earnings on $1 million in a 10.5 percent money market account is $288. Through the use of a telephone transfer system or computerized cash management system, the school district and not the bank, would have control over the interest-earning assets of the district.

Commercial Lines of Credit

A service offered by banks that is infrequently utilized by school districts is the commercial line of credit. Although often prohibited by law, the commercial line of credit is a viable financing alternative where the law permits it. Lines of credit offer overdraft protection thereby eliminating the need of leaving cash balances in the district's accounts as a margin of safety. Through the use of lines of credit, the bank lends the school district cash as needed to cover overdrafts. The loan would be at a specified rate of interest, payable when the overdraft is covered. Under this arrangement cash normally left in the checking account as protection against overdrafts would be invested in securities earning substantial interest revenues. Overdrafts are then paid from interest earnings on the more lucrative investments.

Summary

By necessity, school districts have become more sophisticated in their cash management and banking relations. Generally, the level of sophistication is enhanced by the use of computer programs specially designed to help the school business administrator with financial decisions. The school business administrator must pursue aggressive yet sound, conservative, fully insured investments. In the future, school-banking relationships will play an increasingly important role in the financial picture of school districts.

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10

Planning and the School Business Office

A.P. Johnston and Kenneth Hood

In the United States we have had a long-running love-hate relationship with planning. On the one hand we cherish individual freedom, initiative and responsibility, and on the other we recognize the need for long-term decisions and commitments on matters that affect a community of interests. The railing of one political candidate against "those pointy-headed social planners who can't even park a bicycle straight" captures the invective felt against planners. Nevertheless, there is clear recognition that "getting the government off the backs of the American people" is not equivalent to abdicating responsibility to think through the long-term and collective consequences of both private and public decisions.

Today we call this responsibility "accountability" and mean by that a duty or moral obligation to direct public resources to public purposes in an efficient and effective manner. This includes fiscal accountability in the sense of controlling and recording of money spent, as well as linking the development of an organization to neutral and powerfully important goals or shared values. Long-range planning (we do not intend to make a distinction between long-range planning and the currently popular term strategic planning) involves ferreting out what is really important and developing a means to provide a general direction to the organization as those values are interpreted and reinterpreted.

This chapter is deliberately light on planning technique and technology, in favor of an emphasis on issues and organizational realities that often do not receive adequate attention. There is little to be added to the already voluminous literature on planning technique and technology. Where the chapter differs with current conceptualizations, however, these are discussed.

The chapter deals first with theories of planning and then considers their relationship to the organizational context in which they will be implemented. These broad considerations are followed by a discussion of the societal and government issues which the planning efforts of the local school district can only anticipate, not control, such as federal and state policy. Planning has not fared well in public education due to a lack of conceptual "fit" between planning and the operating realities of schools. This chapter will thus discuss concepts fundamental to planning, organizational realities, the environmental context of the 1980s and a number of political and organizational considerations.

Planning Theory

Much of what passes for planning theory has its origins in other disciplines and is thus not an entirely separate and distinct literature base.[1] There is, nevertheless, considerable discussion about theoretical or at least abstract conceptions of how to best engage in planning and the organizational implications of each. The theories discussed below consider the fundamental conceptual alternatives for organizing for planning as well as for planning to organize.

Rational-Technical

Clearly the most widely written about concept of planning is that of the rational-technical view in which clear goals are established, cause-effect relationships between means and ends are made and monitoring measures and procedures are explicitly predetermined.[2] The method is rational in that it starts with overt and explicit statements of intent (where you want to go), and reasons "backwards" (deductive reasoning) to link together various means of realizing the desired end (how you are going to get there).

An advantage of the rational-technical approach is its focus on achievement. The process is impossible to implement, however, without having carefully refined at least one, and generally several, goals that serve to guide the planning process. In a technical sense, the conception is a model of efficiency, an engineered design that links together part A and part B with processes X and Y. Its organizational analog is the bureaucracy that assumes that organizational goals provide the direction for product manufacturing and that there is a reasonable congruence between the large goals of the organization and the work of multiple groups and individuals within the organization. Clearly stated goals, specified ends-means relationships and benchmarks of progress have forced an organization to remain on target other than for deliberate reasons.[3]

Underlying this conception is "control," or planning built around technical production processes. In order to carry out the process of coordinating the technical work, a rationalized bureaucratic conception of planning is necessary. Such is the work of the "planocrats."[4] Once the coordination plan is laid out, the next step is to keep the process running according to plan. Stability, production and control are achieved through a standardized process which is deliberately static, systematic and logical.

Irrespective of its application to areas other than public education, the difficulties that educators have had with conceiving and implementing a plan reflecting the rational-technical approach are legendary. One reason is that the most basic goals of public education are imprecise and abstract. Quality, excellence and educating for maximum potential are tidy and clean goal statements that are open to multiple and often competing interpretations as to how you achieve them. Their real meaning depends on who is interpreting. These have been called "wicked" policy problems simply because there is not a single, indisputable right answer.[5]

The difficulty stems from the conceptual complexity of the goals in terms of: 1) the relative priority of the different goals under consideration, 2) the fact that some goals are means to other goals (interactive effects of organizational dynamics are enormously complex), and 3) the nature of a specific goal or goals with respect to a particular task.[6] A popular way of dealing with conceptual complexity is to simplify the statements,[7] but by the time goals are "translated" into objectives and means, the interpretation of others (particularly implementors) cloud the original meaning of the goals. In any case, priorities are usually left to implementors or others in the organization, thus diverting the responsibility to a technical or organizational analysis rather than to a political (value preference) choice.[8]

There are, in addition, technical difficulties which relate to the knowledge and information concerning the best, or even a very good, way of doing things. Often boards, administrators and teachers lack specific knowledge concerning what the alternatives are, much less what will work best over the long-term. Sometimes the shortcomings can be remedied by obtaining additional information, at least to the point where a reasonable judgment can be made about "what will work here." But this requires a trial and error approach which fosters on "it is OK to fail" mind set. The assumption of "perfect" cause-effect knowledge is just too strenuous for state-of-the-art capacity to predict long-range specific outcomes.[9] A corporate manager observed that even though the coporate information system could track "the fall of every sparrow," everyone secretly knew the absurdity of projecting numbers out five years to decimal points.[10]

To complicate matters further, the approach requires additional rationalization about: 1) who in the organization is best suited to carry out the task, 2) the right amount of time, dollar and personnel resources to allocate, and 3) the specific measures for success. The task quickly becomes impossible in all but routine assignments.

In theory most administrators agree with the general intent of this approach to planning, but in reality the requirements of the model are not met. As a concept which grew out of a technical and scientific view of the world which held the environment steady (the laboratory) and carefully controlled ends-means relationships, the multiple demands could be met, at least when the objective was narrowly defined. But the world of broad goals, human subjects and organizational dynamics clearly does not fit under, nor could it be made to conform, to the template of the rational conception.

Disjointed-Incremental

It was in reaction to the highly stylized and arguably idealistic view of the world described above, that Chester Barnard, Charles Lindblom and others countered with a theory that grew out of empirical research concerning how organizations really work. Rather than starting with a conception of how the world should behave, these managerial theorists started out by describing how goals are established and decisions made and implemented.

While their work was not written with the purpose of contributing to planning theory, the implications for planning cannot be ignored. Clearly relevant to planning theory was the contention that decisions are made under conditions of extreme uncertainty. The purpose of planning is to reduce uncertainty, and insofar as the arena of the plan can be adequately controlled, the purpose is met. If controls are not adequate, however, the purpose is defeated or at least only partially satisfied. What Lindblom and others found was that there are multiple and competing influences on the organization, many of which cannot be adequately stablilized or held sufficiently steady to stay within the closely reasoned series of cause-effect relationships laid out in the rational planning style.[11] This means for schools, for example, that influence outside of the district, such as economic and political conditions or federal and state policy, cannot be adequately forecasted and controlled to carry out a long-range plan in the rational style.

According to these theorists, events inside the organization are equally complex in that there are many decision points involving a large number of actors each of whom interprets the goals and policy of the organization from his or her own perspective. That is, each decision maker tries to "make sense" of the operations for which he or she is responsible, or, in a more Machiavellian light, turns the organization to his or her own ends. Either way, the conclusion is that organizations are sufficiently complex so as not to be able to be controlled to the extent demanded by rational planning without smothering the organization in red tape.

In like manner, when applied to schools, even at the district level, the approach would claim that to impose a single template of "sameness" on all schools—even on "similar" classrooms — violates common sense. Note that this conception does not deal with the normative question of how much autonomy professionals should be permitted, but with the practical question of how the enormous variability within even a single classroom can best be "managed." The essential question becomes, "Who has the best information at the operational level to make the kind of decisions needed to keep the organization going?"

The uncertainty of events and the enormous complexity of organizations thus prevent top-level administrators from having the information or the overall knowledge needed to make long-range choices. They would, therefore, be better served by a descriptive model that closely corresponds to the conditions under which organizations operate.

In a paper in 1959, Lindblom coined the term "disjointed incrementalism" to describe the nature of decisions as being disjointed, not by deliberate design, but as a result of incomplete knowledge in any one place in the organization. While broad purposes are a part of any organization and constitute the initial reason for organizational existence, planning in a real sense takes place at the operational level where decisions as events, exceptions and anomalies occur. It is through such decisions that the real policy of the organization is made. By keeping closely in touch with the internal and external environments, the organization keeps itself adaptable.

Lindblom further described decision making as incremental, meaning that it seldom leads to radical, high risk changes, but rather marginal ones. Organizational decision makers add or subtract a little here and there, making small changes to accommodate environmental shifts. Incrementalism, as Lindblom saw it, is necessary because proposed means of control have faltered, as in zero-based budgeting and program planning and budgeting systems (PPBS), due to a demand for more operational knowledge than was possible to accumulate and interpret.

In terms of planning, disjointed incrementalism may seem to some to be a way of simply rationalizing "business as usual." To others it may seem like no planning at all. Planners viewed it differently, however. Since they recognized that decisions are made within the broad context of organizational purposes, planners could feel with some degree of assurance, that transformational decisions will not be made in the disjointed manner, thus leaving some room for deliberate and long-range planning. They also recognized that to be effective, planning would have to be attentive to the reality of the organization into which it is to be integrated.

Nevertheless, some scholars saw problems with the disjointed-incremental approach. While they agreed that the rational-technical scheme was too rigid for practical purposes, they were skeptical of the flexibility of disjointed incrementalism claiming that it was difficult to tell "planning" from what it set out to replace.[12] Thus by the late 1960s, Etzioni explored a middle road between a tightly structured rational-technical model and the loosely structured disjointed incremental position.

Mixed-Scanning

In "Mixed-Scanning: A Third Approach to Planning," Etzioni laid out the rational-technical view, contrasted it with disjointed incrementalism and offered a critique of both.[13] The rational model, he claimed, makes impossible demands in that it requires a constant comprehensive vigil over the goals and the operations of the organization. Regardless of whether it is an ideal model, the time and human resources required to implement it are not available. But Etzioni worried that the incremental approach is too attentive to short-term operations, generally no futher in the future than next year's budget, that the organization can drift year after year without considering either imaginative new directions or potentially disastrous environmental shifts on the horizon. In short, Etzioni saw planning "theory" as two different ends to a single continuum. With this conception, he searched for a middle ground.

In his "mixed scanning" Etzioni proposed the metaphor of a camera in which the broad view of the purposes of an organization might be thought of as a wide-angle lens, while a sharply focused lens would symbolize immediate operations. That is, the rational-comprehensive view might be too demanding for normal operations, but it was essential, especially in a turbulent environment, to take a wide-angle view of the future. This permits opportunity for creativity and risk as well as for minor adjustments based on a long-range view. The view from the air can take place periodically or whenever a major decision is to be made.

The "close up" view, to continue the metaphor, shows top management the detail of the landscape or, in organizational terms, the specific operations. Comprehensive planning relating to the day-by-day routine, is not necessary. As Lindblom suggested, such planning evolves according to Etzioni as successive but limited opportunities for choice are presented to those closest to the work of the organization (disjointed), each decision varying slightly from previous operations (incremental).

Mixed scanning is an inviting logical response to the previous positions, but it, too, is subject to criticism. First, there is the criticism that it is in the tradition of rational theory and, therefore, subject to similar limitations. The demands for a depth of understanding in all areas, the information requirements and to some extent the cause-effect mechanical linkages burden mixed-scanning, even though the demand for order and control from top down is relieved. Second, mixed scanning is criticized for not making it clear what constitutes a "big" decision; that is, when is it appropriate to use the wide-angle lens? When does a school business administrator know when to make more than an incremental decision? In short, while the theory is conceptually attractive, it has not been made sufficiently practical for the world of school business administration.

Organizational Development

The 1960s and 1970s saw another reaction to the rational planning model, a reaction which focused on how to mobilize human resources, not only toward achieving organizational goals, but also toward employee self-development, growth and satisfaction. Organizational Development (OD) was introduced to the planning literature as a human relations counterpart to the rational theory. According to OD, clean lines of logical thought overlook human motivation and organizational dynamics. The response was to focus on the interpersonal side of the organization with the intent of making it part of the long-range plan, as well as a part of the planning process.

There are two closely related criticisms of organizational development as it relates to planning. First, it tends to focus on a single environmental influence. As important as human development is to planning, there are many other influences that could affect the future of an organization.

> I have yet to see an organization development program that uses an intervention strategy other than an interpersonal one, and this is serious when one considers that the most important strategies of change in our society are political, legal and technological.[14]

A second criticism of organizational development is that, like the rational theory, it attempts to apply a single strategy to all organizations. What seemed a promising foundation for planning was still locked into "one best way" for all organizations. Generally, Organizational Development does not distinguish between professionally staffed organizations such as schools, and assembly line organizations, or between organizations existing within a turbulent external environment and those operating within stable environments.

On the surface, organizational development looks to be an integrating and multifaceted approach to planning and decision theory. In effect, however, it is merely an appendage of rational theory, keeping intact the characteristics of goal orientation and the analytical and objective mentality. Thus, what appeared to be new turned out to be mixing new wine with old and filling the same old bottles.

Planning Theory in the 1980s

The rational-technical theory is still widely considered to be the proper approach to planning. Recent books and articles dealing with planning, especially assessment and research, are still concerned with techniques and technology borrowed from the traditional scientific point of view. Management by objectives, clear mission statements established *a priori*, deductive reasoning and quantitative methodology dealing with large aggregations of data assume that organizations are machines held together by mechanical linkages and that the purpose of planning is control over the intended workings of the organization.[15] In short, the mentality is that of static stability of the machine as distinguished from a dynamic stability resulting from evolution and development.

Certainly the hold that the rational-technical approach to planning has on education, as revealed in current professional literature, is due, in part, to the adoption by the federal government in the mid-1960s of planning models established to promote fiscal and program accountability. The federal and state governments began to legislate the development of planning documents. Models used to ensure effective project management within the defense department were adapted to education and other human services to meet these mandates. Planning became formalized at various levels throughout the nation's governmental bureaucracies.

While it is important to understand that the rational-technical approach to planning is part of our "roots" as educational administrators and managers, it is equally important to understand that the theory and practice which flow from it are beginning to be reassessed. Everything from the traditional view of science to the operating assumptions of how schools work organizationally is coming under increasing scrutiny. The result is the unfolding of the "new wave" of planning based upon common sense and those things which experience confirms daily.[16] In other words, planning does not only proceed in accordance with the organizational chart, but also takes into consideration informal channels carved out by tradition, personalities and trust.

Yet, tradition-bound as we are, we seem determined to make rational and bureaucratic theory work against all odds and against the experience that each of us has had in our work environments. Certainly the rational model is appropriate for many activities of school business managers, but to use it as the only model distorts the full and rich variations which exist among schools. In short, the facts do not always add up to the reality.

In *Education and The Cult of Efficiency,*[17] Raymond Callahan points out how schools adopted scientific management theory used by the private sector with little adaptation or consideration for difference in purpose, level of skill or type of motivation of those employed. Schools became goal-oriented bureaucracies, ignoring what parents, teachers and school administrators have known all along, that children cannot be counted on to have uniform behavior, motivation and expectations. Nor is it desirable, for to do so is to strip from children their humanity, their individuality.

"New Wave" Theory

To claim a new wave in planning was created in the 1980s would be to claim too much, for history hardly turns such sharp corners. What can be claimed, however, is that by the onset of the 1980s management theorists were coming to terms with an essentially different ideological conception about how organizations should and do in fact function well. The tie-in with local control, school site management, effective schools and other contemporary views of organizational effectiveness should become evident.

New Theories of Waves and Evolution. It has been a part of the intellectual history of western civilization to seek order in the universe. This tradition has bestowed on us powerful insight and useful applications in our daily lives. However, we permitted this striving toward interpretation of order to become not only the predominate interpretation, but the "natural" or common sensical notion of the way things should be. Order is good, disorder bad. "Messy," "unpredictable," "dissipative" are not words associated with good administration.

The early 1900s saw the first explosive break with this line of thinking. Physicists found that not only was more than one interpretation of the same phenomena plausible, but also that the various interpretations may not make sense under the old view of harmony in nature.[18] For example, light could be both wave and particle at the same time, thus violating the idea that nature is explicit or definitive. Darwin's account of evolution, to take another example, showed steady progress, random behavior, failed mutations (experiments) and dead ends (lack of adaptation). Thermodynamics is an example of a science which has demonstrated incredible accuracy in applied mechanics. Nevertheless, it admits to a random and nonpredictable nature at its very core, being unable to explain which particular molecules will be given off as steam in a steam turbine and which will remain as water.[19]

Economics, demographers and actuarial tables developed for the life insurance industry exhibit similar characteristics in being able to predict, with reasonable accuracy, some of the time and at a certain level of aggregation, but never particulars. Winston Churchill, who drank too much, smoked too much, ate rich foods did not exercise, but still lived long and well, is an anomaly. And yet such "anomalies" are a part of our daily lives—none of us exactly fitting the general pattern, none of us having 1.8 children.

This discussion is not to denigrate the importance of science or systematic observation in the physical and social world. If we did not have an ability to predict, order and control, there would be no reason to even think about planning. The point, rather, is to highlight some of the challenges to the old notions of a controlled bureaucracy.[20] To use one of the examples again, Darwin saw nature as having both a general direction of evolution with clear and broad patterns of development and, at the so-called micro level where we all live and act out our lives, confusion or "variance" in which we prize the opportunity to take intiative, to create, to succeed and to fail.

We need to be aware but not overly concerned that schools do not have a one-to-one correspondence with light particles or natural environments. But utilizing metaphors from our environment is appropriate if for no other reason than to emphasize that our social organizations exist within a larger environment to which they ultimately must relate and roughly correspond. Such is the care of the philosophy behind systems theory.

Impact on Educational Planning. What, then, does this mean for the organizational context in which educational planning occurs? It means that theoreticians, researchers and students of organizations are finally confirming what teachers and administrators have known all along—that schools, in order to be effective, must be both orderly and controlled and highly adaptive, always ready to give way to idiosyncratic variation and difference.[21] The paradox of "both/and" is difficult to manage intellectually, administratively and politically,[22] but at least we are in a position of no longer having to deny, for ideological purposes, that important educational goals and educational means are vague, ambiguous and subject to legitimate reinterpretation depending on one's operational experience. One must accept the concept that operational realities of schooling are more analogous to a set of general parameters that capture some fuzzy phenomenon than some single line of "truth."[23] We are at the point of understanding that we do not have to resolve the implications of contradiction and multiple meanings.

A way of understanding organizational context in "new wave" ideological terms is to systematically observe how productive organizations actually work. From the observations have come two key points. First, people need to believe in what they are doing. It is the role of the leader to provide vision and create an atmosphere of shared purpose among the various employees within the organization through his or her own actions and written and oral communications.[24] Actions of leaders shape attitudes and beliefs about what is really important as people "do" their way into planning.[25] And while many specific and major operational decisions may be made from the center (top), they "evolve" as they are filtered and adapted by the makers (of products) and doers (of services) who are openly encouraged to make their own interpretations of how values apply and how to get the job done.

Connecting links remain the same for the new wave organization as for the old-style bureaucracy: policies, legal mandates, contractual agreements and logical connections of job specifications and reporting relationships. Yet, the connections are reinforced by a "social glue" which comes from a recognition of mutual dependency, of doing something important together and a sense of excitement. Leaders of organizations recognize their roles as motivators of people to directive action by creating the meanings by which people live. "We went to the moon," wrote Norman Cousins, "not because of our technology, but because of our imagination." . . . The conception fathered the technology".[26] The way we phrase our fundamental purposes can "put people into motion."[27] Of course, resources, structure and routine are necessary, but they are not sufficient. This is precisely the shortcoming of the rational model which prefers analytical detachment over demonstrations of strong commitment. A technological environment breeds a technological response, not a human commitment.

A second point emerging from recent observations, particularly of schooling operations, is that organizations tend to have both loosely and tightly coupled operations.[28] Tightly coupled operations are controlled from and made accountable to the center, such as transportation schedules, payroll and building construction. Tightly coupled aspects, according to Weick, have four characteristics: there are rules, agreements on the rules, inspection and feedback to improve compliance. Whenever one of these is missing, a loosely coupled system is the effect.

The problem with administrative theory in the rational model has been the attempt to tightly couple all operations. Attempts to control, in the conventional sense, the highly idiosyncratic and specific activities of teaching and learning are virtually impossible. Certainly the reasons given for attempting to do so have not arisen from what is known about teaching and learning, but stem rather from a logical and scientifically inspired and politically legitimized view of how schools should be run.

Evidence suggests that the unintended consequences of tightening control over instruction with conventional means is to produce an environment which in the long run is inimical to the very interests one is trying to promote. On the other hand, new wave ideology does not suggest lack of control, disjointed incrementalism or even mixed scanning as the appropriate approach to leadership and planning. Indeed, what makes the new concept "new" at all is an approach that comes from outside of the rationalistic tradition altogether in acknowledging ambiguity, paradox, messiness, individual difference, decentralization and dissipative structures as normal in nature and as descriptive and normative characteristics of organizations.[29] That is, organizations are built around what goes on anyway.

What makes the new wave theory different from past ideologies at least at this stage in its development, is that it recognizes the world as having many realities, not just one truth and one right way of thinking and ordering. We have learned from the physicists that what you see is what you get or, in organizational terms, where you stand depends on where you sit.[30] No one has the best perspective on problems, or knows what is best in curriculum development or facilities planning. Sharing numerous perspectives is essential to effective planning and decision making.

Planning Within a Government Content

Aside from the very powerful influence of organizational structure on the theory, practice and politics of planning, governments, particularly state and federal, place legal constraints on both the substance and the process of planning. Historically, this has not always been the case, but since 1965, the role of the federal government and increasingly that of state governments have grown to significant proportions.[31] The purpose of this section is not to review specific legislation, but to point out sources of legal constraint that form a part of the local planning environment of school administrators.[32] The school business administrator is generally not expected to do all of the legislative planning in a district, but certainly he or she must be conversant with such planning, particularly those areas that influence specific functions of the office.

Statutory Law

Statutory law is a natural starting point in a district's review of the legal aspects of the planning environment, for such law has both broad applicability and is the origin of administrative laws. There are three purposes for such a review which can impact district planning. The first is to determine minimum standards, e.g., building requirements, transportation safety codes, auditing guidelines and so on. These are coded and catalogued in every state.[33] The second is to determine generally the level of flexibility that a district has under the law by understanding the broad intent or spirit of the law in any given area. The third is to be able to become actively involved in the legislative process. For many years, local school administrators treated legislation and policy pronouncements of Congress and state legislatures as "given" and "have tos" over which they had little control. There is good historical reason for this attitude. The increased volume of state and federal legislation affecting local school districts, however, has spurred a change in attitude. Today, school administrators are overcoming years of passivity and getting involved in the formulation of policy at state and national levels which they will be ultimately in charge of implementing. What seemed absurd a generation ago, that is, having local interests represented directly in the legislative process, is today a requirement for long-range planning.

Administrative Law

As school planners and policy makers are well aware, legislation is always interpreted by intermediaries who provide their own perspective of how the law should be implemented. Efforts have been made, especially in the last decade, to assure that legislative intent is not under or overstated by bureaucratic arms of the federal and state governments, but regulations remain a major source of concern and of specific constraint to local planning. Aside from being involved in the legislative process, local districts need representation in the design of the regulations which in turn, are often interpreted even more specifically as "administrative procedures."

Beyond the role of sentinel, local districts should be advocating flexibility, local option and looser arrangements to permit schools to operate in ways that literally "make sense" locally. Of course this stance is not universally applicable, for some standards such as fire codes and pupil safety might well be applied in a uniform manner. When such is the case, conventional efficiency procedures, such as forms and minimum standards, can be helpful. Regulations should assist local schools in planning for and carrying out legislative intent.

Auditing and Evaluation

Federal and state auditing requirements and procedures present special problems to school business administrators, program managers and district administrators. The audits attempt to measure "how the schools/programs are doing." They are, naturally, politically sensitive. Their record-keeping and reporting requirements, which are often mandated by legislation, place specific burdens on the school business office. These burdens have lessened over the past decade with the development of uniform fiscal auditing requirements by the federal government, and the development of computer technology. Nevertheless, the school business manager must be alert to procedural changes and state-of-the-art technology which can most efficiently meet record-keeping and reporting requirements. The business manager must also be ready to share or supply information and systems technology with the rest of the district to facilitate district-wide planning efforts.

Another area of concern related to audits which impacts educational planning is the frequently overlooked relationship among the program audit and evaluation process and legislation and regulations.[34] Program auditors and evaluators are highly visible actors in the policy development process, for it is they who ultimately pronounce programs a success or failure. Yet, organizational theory and its implications on research points to the fact that there is no single truth. One's evaluation of a program or system depends in large measure on where one is within the organization. Indeed, a program can be viewed both a success and a failure depending on how it is evaluated and *by whom.*

As a result, local districts must be zealous in their efforts to ensure that audits and evaluations are both methodologically and substantively in accord with explicit and implicit legislative intent and district purposes. While it is not advocated that every district have its own representative monitoring every stage of the policy development and auditing process, it is important that districts of similar demographic characteristics, goals and size have someone to represent their point of view.

Case Law and Disputes

While relationship between statutory law and case law is not clear in terms of cause-effect, we do know that an increase in one correlates with an increase in the other. As more laws are passed establishing priorities, mandates or rights, the more litigation takes place. Conversely, the more that is litigated through the courts, the more likely legislatures will react to restrict or expand the courts' interpretations. This complex interaction affects every aspect of schooling and certainly has an impact on a district's planning efforts. A school's attorney should be consulted whenever there is any reason to suspect that a planned program or project might precipitate a legal challenge.

Categorical Programs

The governance structure of education also affects the ability to conduct long-range, comprehensive planning, particularly in certain program areas like vocational education. Diverse federal and state legislative mandates result in "piecemeal," fragmented programs designed to ensure funding, but not necessarily to meet the district's educational goals within the program category.

As in the example of vocational education, where a district may be receiving funds from several different "pots" of money each tied to separate legal authorities, it is virtually impossible to have the several programmatic entities in accord with respect to schedule, methodology and purpose. In addition to managing three separate budgets, the school business manager must play an integral part in the district-wide planning effort to ensure that the individual projects relate functionally with the district's immediate and long-range goals for its students.

Social Context of Long-Range Planning

The organizational and governmental contexts of long-range planning are highly significant considerations constituting an important part of the theoretical design for planning. A societal context must also be considered because demographics, economics and politics have powerful and sustained effects on the shape of a plan.[14]

Demographics

Demographics impinge upon local planning in two important ways: the total size and the direction of change of student population, and the educational attainment level and socio-economic characteristics of the adult population that tend to influence students' expectations.

The size of a school district directly affects planning. Large school districts tend to have planning specialists; in small school districts planning is either added to an existing job description (frequently one in the business office) or spread among several positions. All configurations have advantages and disadvantages.

The demographics of the state and region as well as of a specific school district constitute powerful information on which to base long-range plans. Intelligent interpretation of statistics is a complicated matter as many districts are discovering, having gone through the boom of the 1950s and '60s, the bust of the '70s, and the mini-boom of the 1980s and beyond. When to sell buildings, when to lease, or whether to keep teachers through short temporary swings are enormously important decisions that can be helped by studied interpretation of these data.

Of equal importance is the direction of the change in communities. Districts moving from rural to urban, from blue collar to white collar, from predominately one ethnic make-up to another are likely to experience changes in program expectations, tax base and willingness to be taxed for educational purposes. Socio-economic characteristics taken from highly targeted census tract data are usually good indicators about educational goals. When the education level among adults is high there is usually an expectancy for college preparatory programs as well as a relatively high local tax support for such programs. Conversely, lower levels of educational attainment and lower relative income standings usually signify community expectations for "general education" and vocational programs.

As important as this information is for planning, however, it must be used with three significant qualifications. First, actual data is generally available only every ten years. Planners must be mindful when using estimates that they are only estimates. Second, trends established by the census can shift in a matter of two or three years, as for example, with opening of a major source of employment that brings new families to a district.

The proper use of demographic data is to make certain that you have all data resonably available, make charts with it, present simple explanations and interpretations of it, and supplement the presentation with information available from brokers, real estate developers and others concerned with community affairs. Then have teachers and administrators offer their interpretations of the data. Teachers' and administrators' interpretations should be both general to the district as a whole and specific with respect to individual schools. The entire collaborative effort can be very rewarding, invariably leading to more effective plans.

Economics and Politics

The key to converting dreams and shared values to reality is money. "When it is a question of money, everybody is of the same religion," said Voltaire.[16] Good planning in this area can provide untold benefits in areas as obvious as program and as subtle as school climate. No single area is more crucial and none is more subject to factors over which planning has only a modicum of control.

Factors considered under the preceding discussion of demographics suggest local variances that directly affect school budgets. While in all states, save Hawaii, these factors play a part, their significance is in proportion to the mix of local, state and federal funding. States in New England with 60 to 70 percent local funding will clearly be more affected than high state funding areas like post-Propostion 13 California. Changes in demographics also influence the state formula and categorical contributions can affect federal categorical funding as well.

Federal categorical funding is a function of: 1) the willingness of Congress to fund education generally; 2) the specific law governing the programs to be funded; and 3) the amount of funds actually appropriated for each program. There are pre-funding access points at which educators can make their wishes and advice known and contribute to a stabilized policy environment. Although not seen as a conventional planning activity, monitoring public policy developments clearly supports a district's planning effort. The history of Title I is a case in point. Due to local school involvement, there was a shift from single to multi-year funding[17] guarantees leading to financial stabilization. In most instances, state funding is more important to a school district than federal funding in terms of dollars and flexibility. State educational funds are normally used for "general" purposes, while federal funds are typically targeted for programs. States' financial contribution to local school systems has been on the increase over the past two decades with respect to both dollars and percentage of total budget. Long-range planning concerns regarding state aid are not related to purpose but to the amount of dollars available in the future. For planning purposes school districts need to know how much can be counted on in three, five or ten years. Without multi-year commitments, which states do not generally make, local district planning must be based on estimates (usually based on optimistic, pessimistic and most-likely forecasts).

Clearly, the lack of multi-year funding places a significant constraint on local planning efforts. It is not impossible, however, for local districts to receive commitments from key legislators to a level of funding, assuming an agreed upon inflation rate. Similarly, districts can seek provision in the formula for hold-harmless clauses that prevent drastic reductions of state aid in any one year. Each of these mechanisms serve to stabilize the planning environment.

The early to mid 1980s witnessed rekindling of private sector interest in the public schools, an interest which is not likely to have a significant impact on direct dollar contributions, but could have important indirect consequences. The interest seems to be based upon two factors: that good schools are needed to attract good industry, and that good schools are needed to produce competent workers.

This is not the place to raise concern over shifting public school values to the singular pursuit of economic goals. Economic goals and issues are key to the schools' program as it relates to a community's private and public sectors and social and economic interests. The entire community has a responsibility for planning. Placing a school district's planning activities within the context of community-wide planning is both sound planning strategy and good politics. Indeed, it provides the necessary foundation and stability for a plan to work.

Private sector interests can be powerful allies in attesting to the positive relationship between good schools and a community's or region's ability to attract and keep desirable professions, businesses and industry. Thus, it is important to educate the private sector about the long-term advantages of a quality education.

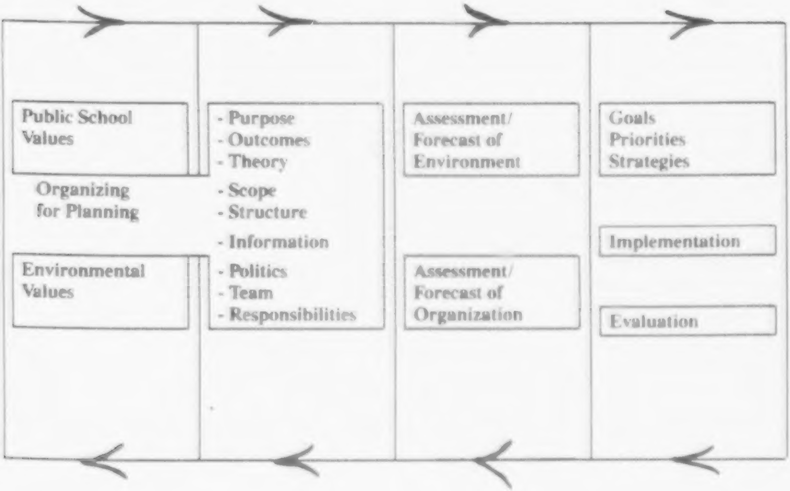
A Policy for Planning

This chapter does not include a "how to" planning process or model, for school districts need to think through a process that makes sense for their own organization, not merely adopt a model. Even if the process which emerges looks similar to processes and models used by others, the ownership and understanding that comes from thinking and doing is important.

Much long-range planning in school is approached as a ritual, often elaborate, with unrelenting paperwork. The yield of information from such efforts that is useful to the future of the organization is typically quite limited. The mammoth planning documents become an end in themselves rather than a means to an end. Planning is often little more than an elaborate, symbolic exercise, robbing important person hours from other projects and resulting only in the illusion of achievement.

The approach to planning described below is intended to serve as a simple schematic presentation. In fact, it is purposefully simplistic so that "adherence" would be impossible without thoughtful attention to process.

Figure 10:1 The Planning Process


Public School Values
Organizing for Planning
Environmental Values
- Purpose
- Outcomes
- Theory
- Scope
- Structure
- Information
- Politics
- Team
- Responsibilities
Assessment/ Forecast of Environment
Assessment/ Forecast of Organization
Goals
Priorities
Strategies
Implementation
Evaluation

Public School Values

For reasons central to the theme of this chapter, discussions about a school's purpose should take place involving all district employees.[38] The process is crucial, perhaps even more so than the product. Led by high level district officers and school board members, the discussion process should be aimed at defining basic values. The discussions are not gripe sessions but a genuine effort to set the general but fundamental direction implied by beliefs and values. This inital process is simultaneously loose and tight, open and closed. There is no mistake in purpose, but there must be enough openness and looseness to let ideas have time to "cook." Compulsive and hurried activity at this point is the first clear message that you don't really care.[39]

An exciting vision of the future is an appropriate first step. A clearly articulated vision has the capacity to stir people to move with high energy, dedication and high performance. Without a value-sense, organizations tend to live in the past, with memory killing innovation.[40]

A broad visionary statement is only the beginning. Care must be taken to ensure that the statement of values becomes a shared belief, a channel through which to create a set of specific achievement goals and stategies. Without an intention to act, the vision remains illusion. Another danger is that the vision will become so broad that everything, including past practices, flies under its banner. If it means everything, it means nothing. Still another danger is that the vision which raises the moral and ethical issues will slip into self-righteousness, a self-defining absoluteness and, in the end, a self-defeating moral bankruptcy. The difference is in attitude. The pursuit of excellence can free or enslave.

Environmental Values

As the depiction is intended to demonstrate, the particular values chosen for an organization are important not only on their own terms but in how they integrate with their environment. As the earlier discussion has stressed, the school exists in a set of cultural values with which it must deal. Citizens should be informed about what professional educators feel to be the important, baseline values, and educators, in turn, need to be well informed about the community's values and beliefs, through interaction and fact-to-face contact.[41] Interviews and questionnaires are important data gathering methods, but nothing should be thought to take the place of systematic, informal, discussions and listening. Aside from the issue-de-jour, school planners must be attuned to the historical, and often deeply embedded values, of the community and its environs and link these with events that portend trends for the future.

Also included in an environmental assessment of values are those values that underlie state and national trends,[42] and make America the wonderful place it is. And while basic values remain relatively stable they give rise to different trends as society's priorities change. Sometimes such change causes conflict. Pursuit of equality and excellence by school reform efforts of the mid to late 1960s, the early 1970s and of the 1980s are illustrative of tensions arising out of changing emphases on values.

The most difficult task conceptually is to develop a framework within which all environmental values can be understood. Initially the framework should not be tight. Nevertheless, it is important to have a definite direction which includes: 1) knowing what you stand for (the fundamental purpose and reason-for-being of public schools); 2) eliciting community values (those deeply embedded, present manifestations and emerging trends); 3) eliciting state and national values and trends; and 4) analyzing how these values interrelate and have implications for school operations. The process will focus the district planning effort on those concerns which are most important to the community and the role the school plays in it. In-depth study will be required in some areas. As the environmental values influencing the community are uncovered and explored, broad paths of action consistent with these fundamental values will become evident.

Organizing for Planning

School values directly affect the purposes of planning and how the planning activities are organized. The fundamental purposes of a school system are an initial indicator of the following: 1) what planning is expected to do; 2) who will be involved in the planning; and 3) what information will be most crucial.

The following activities form the basis for a long-range planning organization within a school:

- The purpose of planning be established.
- The intended outcomes of planning be clarified
- A planning theory be agreed on.
- The scope of planning be established.
- A structure for planning be established.
- Information requirements be reviewed.
- Politics of planning be carefully considered.
- A planning team be established.
- Responsibilities be clarified.

Purpose of Planning

The first organizational activity is to determine the purposes planning is to fulfill.[43] This is the key to all that follows. Planning can readily serve the purpose of control, it can serve a symbolic purpose and it can be used for pedagogical purposes. These are not necessarily either/or categories, as all can be used simultaneously, but one or the other can be predominant in a school district.

In the discussion on planning theory and again in considering organizational context, control has historically predominated planning purposes. There is broad agreement today that the rational-technical theory on which this purpose is based is too rigid for real-world organizations. Nevertheless two important considerations emerge from this theory. First, there are some areas in which tight structure and control are necessary, like payroll, transportation, safety measures and financial audit procedures. The key question is, what areas, if routinized, make the operation more efficient for the purpose of educating children?

Second, the consideration that organizations can be both centralized and decentralized, depending on the activity or goal. Thus the perspective of what is loose or tight is a function of where one is in the organization. Routinely overlooked by classical rational theory, simultaneous loose-tight properties of organizations are commonly recognized by theorists and managers today.[44] Despite the reality and the newly emerging theories, conventional planning models still reflect control as the primary purpose of planning. For this reason alone it is easy to follow a rational-technical model in spite of the weight of experience which indicates "tight" is not the one best way.

One must not downplay the political importance of a district being perceived by others as being well-ordered and "tight." Given its long history, the rational model conforms to one of the public's expectancies and is, therefore, very important for symbolic reasons and, not incidentally, for funding. The questions that a school district planner/administrator must answer is how much he or she believes control to be the primary purpose, and to what extent the model, even when honored more in the breach than in fact, is causing dysfunctions within the organization.

A third purpose of planning is pedagogical[45]—that of providing information, perspectives and alternatives to some or all other functions of the organization. In this way planning can be viewed similarly to research. Both research and planning function as an enhancement to the organization's ability to learn.[46] If structure and the function of planning follow this purpose, planning is seen as a service arm of the organization rather than as a control function. Assisting others in solving their own problems becomes more important than solving problems for them. The planner is a team member rather than the technical authority. Beyond this function, the planner also provides a long-range perspective not only regarding purposes of the organization, but also assists in tracing the consequences of alternatives designed to resolve immediate problems. Thus long-range planning is both a function of and informative to short-range planning.

Which purposes the school business administrator sees planning satisfying will affect the organization and the nature of planning. In the abstract, the response is likely to be "all of the above." If such is the case, the job increases in complexity, for "purposes" are central to decisions related to centralizing or decentralizing, loosening or tightening, controlling or teaching and so forth. Even if no decision is made initially about the purpose of planning, over time planning will tend to be characterized by one purpose or another. As Lindblom observed, numerous small decisions have a way of drifting into and becoming policy.

Planning Outcomes

The outcomes of planning must answer what is generally expected as an end result of the significant expenditure of time and money in the district's planning effort. Criteria for success should be stated for political reasons as well as to provide a basis to justify expenditure of resources.

Outcomes relate to the issue of process versus product discussed earlier. If products, such as planning documents, are the chief measure of success (this is most often the case in planning), the entire planning effort will tend to be directed toward document production regardless of values or planning theory. If planning is viewed as a process, on the other hand, it is less easily measured. In such cases, it must be very clearly stated as an emphasis. Ideally, one should not focus on product or process, but rather on achieving a desired balance between the two. In other words, view the process as a product.

Planning Theory

In earlier sections of this chapter, various approaches to planning, their assumptions, their implications and authors' preferences and rationales were discussed. The latter flow from 1980s organizational theory and are both realistic and important in this age of reform. One must recognize that society is undergoing a major transition and that a planning style must be commensurate with a degree of comfort as well as the local organizational reality. The importance of local control cannot be overemphasized. Under any circumstances, however, one will have to choose, implicitly or explicitly, to adopt some variant or combinations of the rational model, an incremental, mixed-scanning, organizational developmental approach or the "new wave" view of organizational planning.

Planning Scope

With a thoughtful analysis of values and the other basics of planning, the next step is to consider the scope of planning. There are three alternatives, all of which have political and resource implications: a comprehensive planning approach, a key areas approach in which related areas such as student academic progress and staff development are the focus, or an approach that features specific items within these or other categories.

A comprehensive plan, irrespective of planning theory, offers an advantage in taking initiatives simultaneously in a number of related areas and thus creating a synergy of forces in which the whole is greater than the sum of the parts. Comprehensive planning also permits a wide range of trade-offs or compromises, both within the organization and with outside political forces. Quite commonly, for example, extra money is tied to accountability, but this can also be tied to everything from curricular redesign to methods for evaluating teachers.

On the other hand, comprehensive long-range planning requires enormous resources and energy and, perhaps above all, a mind set for reform. The board, the community, the superintendent, other administrators and teachers must believe that such an effort is necessary and will produce results. A small nucleus team can be assembled initially to promote a central vision and assist in building commitment to the concept of comprehensive long-range planning. Others can be added to the process at a later date.

An alternative to comprehensive planning is to select several key areas as a planning focus. The areas ideally should be interrelated to take advantage of synergistic effects. Under a key areas approach, for example, building maintenance and staff development may be selected as priorities for political or practical reasons. The advantage of this approach is that the targets are broad enough to gain support and generate enthusiasm, yet does not appear too ambitious a planning project given district resources. In a hostile environment, the approach has the political advantage of protecting proposed programs from public scrutiny until the climate is appropriate. Proposals for reform are vulnerable to public criticism particularly when interest groups have years to mount their challenge.

A third alternative is to conduct planning with a highly limited focus, designed to show that planning does work, and that somebody is taking action toward resolving a particular problem. Focused planning on a limited area must demonstrate thoughtful analysis and preparation for anticipated future trends or events. It has the advantage of demonstrating within a short time frame how a plan translates into action and resolves problems. If done well, it has the added advantage of demonstrating how the planning function contributes to organizational decision making. This helps, in turn, to counteract the criticisms that planning is peripheral to operations or, worse, another layer of unneeded bureaucracy.

The second and third strategies clearly require fewer resources than comprehensive planning and are particularly appropriate when there is a need to demonstrate the value of planning or to make rapid shifts in deployment of resources in response to uncertainties in the environment. Indeed, under conditions of extreme uncertainty, comprehensive planning need not be undertaken unless the risks for not doing so are very high.

The driving factor behind any planning activity are those values which describe what schools are in the business of doing. Even when immediate considerations divert attention from them, the general directions should be well articulated.

In summary, to determine the scope of planning it is helpful to answer these questions:

- Is the culture of the organization prepared for significant reform? If not, is it possible to create a reform desire? If the response to both is no, is there any reason to consider comprehensive planning?

- What are the human resources needed for your approach to planning? Are these available or can they be made available?

- Does the district have the dollar capacity and the political will to carry through on long-range planning, comprehensive or otherwise?

The choices involved in determining scope need not be considered in isolation. There is no reason why all three of the strategies cannot be pursued simultaneously. Much depends on district needs, the political and organizational climate and resource availability.

Finally, considerations related to scope must be analyzed within the context of considerations related to planning theory. One could argue, for example, that the incremental strategy is more suited to immediate and uncertain situations with low risk. Equally arguable is the idea that new wave thinking be used at least in some measure under any circumstances. If scope must be narrowed for immediate payoff, the education-related function of planning would necessarily be mitigated in the short-run, but its contribution to the long term remains important.

Structure of Planning

Structure of planning as we are using it describes where the planning office is located (or the planning functions performed), the skills associated with planning, and the reporting relationships of the person(s) responsible for planning.

In considering physical office location, it should be recognized that in the real world of organizations, form (structure) typically follows function, but the converse also may be true. Much depends upon where the planner is placed within the organization and which "tools of the trade" are associated with that office or function. If the planner is to provide data to the central office (certainly it is not uncommon that a planning office contribute to centralized decision making) the planning office must be a centralized office.[47] Securing data from unwilling sources requires both political and technical strength. On the other hand, a decentralized planning structure suggests that planning is used primarily for the purposes of "planning-as-pedagogy."

In the centralized version, the products of planning are generally conceived as technical documents, more often than not used for political and symbolic purposes to underwrite a position. Rather than being viewed as useless, as when administrators bemoan that "the plan took two years to develop and now sits on the shelf," plans serve on important, symbolic function. As guides to action, however, they generally fail miserably.[48]

In the decentralized version, "products" of planning are seen as user-oriented documents developed for the purpose of informing decision makers about policy choices, carefully weighted in terms of data availability and both long and short-term consequences. For example, different types of data may be aggregated according to levels of need within the district. The planner, in this instance, is seen as a member of a problem-solving team whose function is to present, inform and interpret, not to decide.

Role and Requirements of Information

Information plays an important role in the planning activity. As a result, when organizing to plan, one must understand the role information plays as well as the basic data requirements concerning environmental trends and other categories of information on the planning effort.[49] The basic questions that must be answered are:

- What level of data do you want (e.g. by student, by classroom, by school)
- Is the data available in a form that you can use?
- What are the hardware, software and data analysis requirements?

Obviously, questions of data requirements relate directly to the discussion on scope of planning.

Technical Politics

An understanding of the politics of planning is crucial to planning policy development. First there is the politics of information. In most organizations, information is power that is earned at great cost and given up reluctantly. Perhaps the one most troublesome area in planning is the continual retrieval of up-to-date information that is collected through others. There is a great temptation to delay or give partial information, to answer technically, but not necessarily in the spirit intended, to misinform with over or under statements or to simply ignore requests for information.[50] One reason for the problem is clearly the paperwork burden it places on teachers and administrators. Another is that people are reluctant to yield to others their own basis of expertise and ultimately decision-making authority. A third reason relates to the interpretation of data. Frequently, providers of information share the concern that data, in the form in which it was asked, serves to misinform as well as inform. At best, data that has been stripped of context[51] can give only a partial story but purports to tell the whole.

Other concerns related to data concern methodology and the level and type of data to be used. A planner should recognize the limitation of data no matter what methodology was employed or how thoroughly it was assessed. Those who best know the context from which the data were abstracted should be invited to participate not only in its interpretation, but also in the consideration of possible direct and indirect consequences.

As best, any plan can only be an approximation. The amount of detail that is put in a plan is a function, in part, of what is to be planned. Generally speaking, planning is far more than a technical exercise involving more than technical skills. Overplanning, always a temptation for those who see planning as a technical science, is all too feasible. On the other hand, a planner with good technical skills who can also function well in the political and human arenas, has a very good chance of making a big difference. His or her "product" is not just a planning document, but rather a useful tool which will impact (hopefully positively) the future of education within a community.

The Planning Team

The formation of a planning team depends on the range of decision-making authority to be given individuals and team members and the extent those assigned a formal responsibility are supposed to do the work themselves or delegate it. The following factors need to be taken into consideration when selecting members of the planning team:

- Deep commitment to the goals (vision) of the planning effort.
- Ability to communicate that vision to others.
- Particular skill or knowledge
- Appropriate political alliances.
- Position within the organization (to help translate vision into reality).

Planning Responsibilities

By this point in organizing for planning, decisions related to responsibilities must be addressed. The following is a checklist of decision points:

- Who is directly accountable for keeping the planning effort going?
- Is the proposed organizational placement of planning appropriate to the goals?
- Who will report to whom about what and in what form for planning? for operations?
- What are the approximate time lines that you have in mind for accomplishing the various stages of planning? of implementation?
- Who is responsible for assuring that the planning effort has a designated and realistic budget?
- Are evaluations and assessments of, for example, students, teachers or programs included in the responsibilities of the planning team?
- Who will be responsible for implementation of the operations? (When the planning, or some piece of it, is ready to be implemented, does the locus of responsibility shift?)

The Planning Process

Assessment and Forecast of the Environment

Since there is a large body of literature concerning methods and technology for gathering and using information,[52] the purpose of this section is to suggest categories and elaborate on points that are often overlooked.

Types of data and forecasts are:

- Demographic and social
- Economic
- Political
- Fiscal
- Governmental

These have been discussed earlier in this chapter. Nevertheless, it is important to make two further points. First, if the most current data are of questionable validity, forecast data are even more so.

Second, once you have all the qualified data you need, it must be subjected to two types of interpretation. One deals with areas of likely stability and instability over the length of the forecast. While highly judgmental, by assessing and forecasting these dimensions together, some "educated" guesses can be made as to which estimates will most likely hold up and which are subject to too many unknowns to be predictable. In order to take action toward a long-range goal, these judgments must be made, and this explicit recognition of judgment will serve to make more clear the nature and extent of the uncertainty with which you are dealing.

A second interpretation is needed which anticipates environmental events that will impact the school district. There are two considerations here. First, what is the general (macro) impact in terms of numbers such as changes in population or tax base? The second (micro) consideration relates to program goals and tries to predict what the impact of environmental changes will be on specific goals and strategies which form the basis of the essential vision of the district.

Making interpretations and "best judgments" based on data of only approximate validity may not appear worthwhile. Yet, these are two reasons why it is important. First, by being informed and thoughtful about the future, a district can consistently avoid being caught by surprise. Second, by recognizing and discussing the shortcomings of data and interpretations, an organization will tend to remain procedurally flexible to meet the changes. People and organizations have a tendency to become rigid without the antidote of known uncertainty.

Assessment and Forecast of the Organization

The following categories must be taken into account in order to further the essential vision of a school.

- People
- Structure and function of the organization
- Program (explicit and hidden)
- Technologies
- Budget

The most important resource of public schools is its staff. Planning literature gives the impression that people are little more than a piece of technology. While people do possess technologies, they should be viewed as a unique resource with the potential for organizational transformation. Tapping people's talents and nurturing prospective leaders is critical to the planning process.

Structure and function of the organization is to be planned in accordance with how one wants people to act. The conditions for growth and development must be viewed from the perspective of the individual and from the perspective of the general school climate for development.

Even though the data are less than certain and interpretations and judgments must always remain sufficiently open for change and sufficiently closed for action to occur, there is no avoiding the task. It is better to be explicit and recognize the weak points than not to do the planning at all. If, however, assessments and forecasts are made which become static in their interpretations, especially of people and their development potential, planning then becomes not an agent of excitement, hope and change, but a reinforcement of the worse bureaucratic disease of rigidity.

Goals, Priorities and Strategies

While most of the literature related to planning puts goals, priorities and strategies first, this chapter is written with the intention of preparing the organization to engage in long-range planning. Like planting, a prerequisite to successful planning is to prepare the ground. Thoughtful analysis about purpose, scope, personnel, resources, environmental impacts and the like are essential to successful planning. Moreover, there is a sense of emanating from the schools' vision which, though not specific goal statements, serves to support organization of planning. Since the whole process is highly interactive, no matter where one starts, one should arrive at the same place.

With comprehensive planning, limited resources will preclude all things from being attempted at once. Program goals and enabling or supporting goals should be established separately, with priorities and strategies then set accordingly as a matter of procedural preference.

Implementation

The single greatest failure of planning has been the inability to move off the drawing board into action. Until recently, planning has been historically concerned with "planning" as an autonomous function, connected only by logic to the "real world." Today, planning is viewed as a way of thinking about and addressing the future.

To facilitate implementation, the implementors (teachers and administrators) need to be involved with planning for a variety of reasons stated earlier in the chapter. They need to feel "ownership" of the strategies which they will be conducting. They have the educational perspective (as opposed to a generalist one). In addition, planners must be implementors and implementors planners in order to make appropriate procedural changes and assessments of how well the district is doing. As disjointed incrementalism made clear, the information which implementors have about assessment is critical. It is especially important for the implementors who must clearly understand the simultaneous loose and tight properties of a plan (i.e., tight around the essential vision, loose around their capacities as professionals to make operational changes without losing sight of the purpose of the enterprise).

Evaluation

The planning literature makes a distinction between process and product evaluation or between evaluation of the plan and its procedures for implementation, on the one hand, and outcomes (activities accomplished or real effects on children) on the other.

The evaluation process should clearly distinguish between program goals and support goals. For each, planning and implementation procedures should be assessed and evaluated so that the degree of success or failure can be measured and the question, "Why?" answered. This sort of evaluation is primarily used by management to gather information about instruction and make appropriate improvements. It is helpful to know what worked and what did not work. Even when some aspect of the plan is not "successful," it is still useful if something is learned from it. The dynamic model of evolution, after all, features organizational regularity and experimentation as essential to progress. Program evaluation, relating to both outputs and outcomes, employs benchmarks that attempt to answer the question, "Did we make a difference?'"[31] This data can be used for both program improvement and development.

Going to the heart of everything discussed in this chapter, is the question, "What are you willing to accept as information?" This chapter has stressed the importance of belief, vision, a shared sense of purpose and a sense of being involved in something important, all of which lends vitality to the work place. Process is as important as the product. In schools process means people, and without them quality is likely to be lost.

What is needed, therefore, are tight measures of process and product, but considerable looseness in judging excellence. Quality is most easily recognized *post facto* and can never be fully described. School professionals are regularly judged by the quality of their choices. Quality is recognized by stipulate criteria, deliberate measurement and an unknown mix of observed events, interpretation and integration. Describing the key factors and how they come together for one school is not a prescription for another school. One must be tight when this makes sense in ethical, professional, motivational and technological terms, and loose in all cases with which we pretend to know more than we do."[34]

Making It Work

The school business office should govern its relationships with others based on the most fundamental school system beliefs. In its interactions with teachers, administrators, board and community it is critical that actions taken by the business office be consistent with the district's goals. A very simple statement guides the action of the Johnson City, New York, school district: "*All children can learn anything they want given enough time*." This basic belief conditions all action in the school system and provides a framework for the business office to conduct its essential services.

The superintendent of the Johnson City schools explains it this way. "The business office in our school system works in concert with others to enhance the children's ability to learn. The focus on learning gives the community, teachers, administrators and the business office a common purpose, a purpose which builds a sense of belonging and identity." Put differently, the business office helps to develop budgets and long-range plans that are focused on a set of goals established to assist students.

Given this set of goals and given the centrality of mission, the school business administrator in this example plays a prominent role in the educational process. Instead of the singular responsibility being the exercising of controls over the budget, the school business administrator has the dynamic role of helping people imaginatively utilize resources aimed at attaining the school's mission. The school business administrator can help teachers, for example, combine resources to get more for each dollar. They can help teachers and administrators examine ways to organize people and resources by stressing the dynamics of efficiency. Questions of efficiency, therefore, extend beyond a concern for a balanced budget. Efficiency relies on a thoughtful analysis of total resource allocation—human, physical and financial working toward a common end. The focus of business office's planning becomes both a balanced budget and working with others to get the most educational effectiveness out of existing resources.

From this perspective, the effectiveness of school programs is enhanced by looking at the budget as something that supports and reinforces the mission. Most often, the budget is seen as pots of money allocated to programs, departments and individuals in the school, with the business office's responsibility being solely to affirm that money has been spent in the proper way and that it does not exceed the limits of the budget. What is required, however, is a dynamic view of budgeting in which there is a pool of resources — people, materials, equipment and the business office—helping to achieve the best possible mix in or to attain educational goals. The school business administator must enter into a pedagogical and helping relationship with others in the district.

In terms of long-range planning, an important educational function of the business office is to bring a variety of data (discussed earlier) to bear on immediate educational problems and issues, as well as on the operational aspects of long-range planning. There must be ongoing discussion between the business office's personnel who collect and interpret data and those responsible for educational program decisions in the schools. Under this conception, all personnel within a school system become full, participating members in the commitment to quality education.

Another way the school business administrator plays an important role in developing long-range plans is by providing data and analyses to the school board, either through the office of the superintendent or directly. The board is strategic to forging the commitment to and providing resources for the fundemental purpose of schools. The board's concern in this regard will clearly be different from that of teachers and principals. Nevertheless, the school business administrator's role remains that of educator and helper.

Finally, a closely related yet distinct role of the school business administrator is that of stabilizing the policy environment.[35] The role of the school business administrator is to anticipate change and through planning activities (such as new legislation and the development of contingency plans) moderate the effects of the environment on educational attainments. If formal planning is not feasible or insufficient, the school business administrator may negotiate or otherwise reach understandings with others who do control the political environment.[36]

Planning agencies, state and local policymakers and business interests all have an influence on density and type of housing. It is a point for school-community discussion how housing, property rates, real wealth and state finance formulas balance out in terms of both equity and quality of schooling. Decisions as to where to place housing and business impact on public transportation policy and all affect the conditions under which a school district operates. An imaginative school business administrator, therefore, is likely to conduct prolonged discussions with local interests concerning good schools being magnets for good business.

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11

The Personnel Function: Practitioners, Practices and Participants

Donald L. Robson

Three primary variables interact in the management of all organizations: the manager (practitioner); the formal organizational pattern (practices); and the groups and individuals who populate the organization (participants). These three variables form the basis for consideration of the personnel function in this chapter. The manager will be the school business administrator, by whatever title that individual is known in his or her setting. The formal organizational pattern will be the structure of the organization, including its setting or environment, both internal and external. The groups and individuals who populate the organization are the "stuff" of personnel management. Their behavior and motivation will comprise the focus for discussion of this variable. This chapter will consider the personnel functions in a school district from a generic perspective. That is, the focus is managing personnel, not personnel management. A series of factors relate to characteristics and behaviors of the individual in a managerial role.

No two people fill the same role in exactly the same way. Specific views about employees, philosophies about authority and work, perceptions about one's own and others' obligations to the organization, values and personality characteristics, among other factors, will color the individual manager's relationship with the personnel who populate the organization. The status, power and responsibility associated with a managerial position require introspection, an understanding of one's own motives and an appreciation of one's own biases.

The "formal organization" is a well-known characterization of the planned pattern which structures the relationship among units and among formal roles in the organization. This planned pattern is intended to produce an internal environment which is functionally rational and which optimizes efficiency. The organizational chart diagrams the intended relationships of authority. The internal environment, however, also consists of the pattern of relationships which develop among human beings in response to the demands and expectations built into the planned pattern. This "informal structure" is discussed in this chapter as integral to the organizational pattern. Similarly, the organization articulates its external environment in both planned and informal ways. That is, certain formal and planned mechanisms of articulation exist, such as advisory committees, PTAs, purchasing and bid procedures, public relations practices, board of education agendas and others. In addition to these formal mechanisms, schools are subject, perhaps more than most public agencies, to informal environmental articulation. Demands for accountability and change, concerns about the cost of education and the level of taxation, individual and community value disputes and a host of other concerns reflect the amount of environmental turbulence with which the administrator must deal. These unplanned environmental intrusions are integral to the discussion of the organizational pattern.

In addition, however, to the practitioners of personnel management, or to personnel management practices, the personnel function must examine the individuals and groups which populate the organization. This chapter, then, deals with those factors which describe personnel and examines group and individual behavior in addition to unions, minorities, disabled and women as organizational participants.

Practitioners

Whether a school district is of sufficient size and wealth to employ a personnel manager, whether personnel is only one function of a central office administrator or whether no individual is specifically assigned the primary responsibility of personnel management for the district, the personnel function is a shared one. Any administrative role which operates as a line position is involved in personnel management. That is, whenever an administrator has responsibility for accomplishing the work of the organization through others who are subordinate, that individual has personnel functions.

A fundamental purpose of the personnel function is to facilitate the primary purpose(s) of the organization which it serves. Personnel functions should promote efficient progress toward the basic goal of the school district—the education of students. More specifically, the personnel function should promote the most efficient and effective operation of its individual unit within the organization. It should, therefore, be the goal of the administrator with personnel responsibility to

1) recruit and retain the most competent people for the job at hand;
2) assist in the individual development of competence to increase the productivity of employees;
3) assure that employees are assigned and utilized most efficiently, according to their skills, training and interests;
4) increase and improve employee satisfaction and adjustment to their work and the work place; and
5) clearly define work expectations and regularly and systematically evaluate performance in relation to those expectations.

Managerial Behavior and Leadership Style. In a very real sense, the managerial style and the administrative personality of the individual in the superordinate position will determine the extent and effect of the accomplishment of these personnel goals. That style may place greater importance on the tasks to be accomplished than on personal feelings. That style may be based on a view of the employee as one who must be watched and directed in order to perform adequately. The essence of the personnel function is found in the way the manager balances the needs of the organization with the needs of the employees. It is at this interface—the needs of the organization vis-a-vis the needs of the employees—that the three variables (practitioners, practices and participants) come together.

The needs of the organization have traditionally been the purview of management. Since the articulation of scientific management principles by Frederick W. Taylor, management has generally taken unto itself the planning function.[1] Implementing ("doing") was separated from planning and allocated to subordinates after they had been trained in the proper methods. Thus, managers were seen as being uniquely responsible for planning the work to be done.

The bureaucratic model of organization describes a system which comprises the following general elements:

- Division of Labor
- Hierarchy of Authority
- Rules and Regulations
- Formalistic Impersonality
- Career Orientation[2]

Since virtually all complex organizations are bureaucratic in structure, a short discussion of this form is important.

Weber described efficient organizations as *rational*. These were designed to accomplish predetermined goals. Common to all such organizations was a division-of-labor scheme whereby complex tasks were broken down to allow for ease of training and the development of competence in task performance. This was possible due to specialization, which allowed increased technical competence. Such a scheme, however, gave rise to a need for greater coordination to ensure the quality and consistency of everyone's performance. Thus, bureaucracies provide a system of graded authority, arranged in a hierarchy, to establish such control. Because efficient organizations operate on norms of rationality, consistency and standardization are promoted to overcome the effects of human error, inconsistency, emotion and other sources of human variation. Rules and regulations normalize the operations of the organization and promote a standard form of treatment and behavior. Rules operate as much to constrain managers from making arbitrary decisions as they do to constrain great variation in employee behavior. Similarly, bureaucracies function under a system of formalistic impersonality wherein the manager exercises authority in an impersonal and universalistic fashion. The rational system asks only what is best to achieve the organization's goals. There is no room for personal considerations like love, hate, prejudice or other emotions in the decision-making process; decisions are to be made impersonally and rationally. Under such a system, the worker would develop technical competence through specialization. With this greater competence, the worker would rise in the organization to supervise the work of others and ultimately to assist in planning work as a manager. To avoid arbitrary dismissal of such valued employees and to encourage long-term self-investment of increasingly competent specialists, a system of tenure and seniority is generally found in bureaucracies.

The manager is charged with the task of keeping the organization running. The management function involves enforcing rules and regulations, making rational decisions which will maintain organizational equilibrium and keeping the operation from breaking down. Classical management principles articulated by Henri Fayol, Gulick and Urwick and others were based on the concept that the managing of work could and should be separated from the work itself. Managers were seen as being responsible for such organizational maintenance tasks as planning, organizing, supervising, directing, coordinating, reporting and budgeting.[3]

Under the rational, scientific management, bureaucratic or classical management perspectives, maintenance of the organization is a primary function of the administrator. People are hired as managers to make the organization operate the way it was intended to operate. Indeed, for some administrators the organization becomes all important. The manager may take on a bureaucratic personality. The enforcement of rules becomes a personal goal, not a means to achieve an organizational goal. Some administrators seem to be preoccupied with accounting for paper clips and "playing it by the book" in all decisions. But it is important to understand that every member is charged with organizational maintenance. Every manager is responsible for how the organization operates and to what extent it accomplishes its goals. Managers who do not develop some "task" orientation will not be perceived as effective either by their superordinates or by their subordinates.

Likewise, it is important to understand that managers function according to their views of the fundamental nature of their employees. The fact that management must plan and direct the work to be done implies that those doing the work are not capable of or willing to plan and direct their own efforts. The concept that work can be broken down into specialized units which allow for ease of training and rapid development of competence, essentially devalues the worker as interchangable and expendable. The idea that managers direct, supervise, coordinate and so on presumes that workers must be watched, led and perhaps pushed to accomplish organizational goals. If an administrator assumes that people are by nature lazy, indolent and self-centered, there is no choice except to supervise closely such people, tell them everything that must be done and how and give them little or no responsibility. Trusting such people would neither be rational nor in the best interests of the organization. If, on the other hand, an administrator assumes that people are, by nature, responsible, ambitious and trustworthy, such people can be allowed to participate in decisions about their own jobs. They can be assumed to give "a fair day's work for a fair day's pay." They can be given responsibility and made to feel important in the organization. It is important that managers examine their own feelings about their employees and what they assume to be the fundamental nature of those whom they employ. The school business administrator typically deals with a wide range of district employees, from custodial aides to accountants. How each is treated may be a function of such assumptions.

McGregor's "Theory X" propositions about management include the need for directing, motivating and controlling the actions of employees to modify their behavior to fit the needs of the organization. Without this intervention, it is assumed that people would be passive or even resistant to the needs of the organization. In this view, then, they must be controlled through persuasion, reward, punishment or otherwise directed. His "Theory Y" propositions about management include the concept that people are not by nature passive or resistant to organizational needs but have become so as a result of their experience in organizations. McGregor says that the motivation, the potential for development, the capacity for assuming responsibility and the readiness to direct behavior toward organizational goals are all present in people. Management does not put them there.[4]

Indeed, Argyris, in discussing mental health problems in organizations says, "Most human problems in organizations arise because relatively healthy people in our culture are asked to participate in work situations which coerce them to be dependent, subordinate, submissive or to use few of their more than skin-surface abilities."[5] Healthy individuals in our culture tend to find dependence, subordination and submissiveness frustrating. As a result, says Argyis, they leave the organization (through absenteeism and turnover), they climb the organizational ladder, they become defensive or aggressive, they become apathetic, they form informal groups, they form unions and show other effects of such treatment both in their work lives and in their lives outside work.

As managers examined alternative ways to work with people in the accomplishment of organizational goals, it became evident that when cooperation could be gained and when commitment was developed in workers, productivity almost always increased. Concern for subordinate welfare and employee needs began to be seen as a key element in effective supervision. Katz, Maccoby and Morse in a study of the home office of the Prudential Insurance Company, found that supervisors of high-productivity groups were more likely to be employee-centered than production-centered.[6] Similarly, they were more likely to exercise general rather than close supervision. Management behavior based on this kind of finding has led in many cases to a de-emphasis on "task" behavior and a greater emphasis on people. Some managers are expected, then, to maintain good worker morale and to strive to promote employee satisfaction in order to gain commitment and cooperation. These tactics are presumed to increase worker output and overall productivity.

Two major dimensions, then, of managerial behavior in relation to employees are: 1) the extent to which the manager focuses on the tasks which need to be accomplished by the organization; and 2) the extent to which the manager focuses on the needs of employees. Managerial behavior has been roughly viewed as being oriented toward one or the other of these dimensions in a variety of studies of leadership style. Managers with a human relations orientation focus on providing an organizational setting in which employees' needs for security, acceptance, recognition, status and self-fulfillment can be realized. When such needs can be fulfilled through work the employee will be more satisfied, have higher morale and be more productive on behalf of the organization. Many personnel practices grow out of this basic assumption, and many administrators operate from a democratic, participative decision-making perspective with subordinates.

Leadership and Styles. The need for structure and for consideration have been recognized in research on leadership. For a time the predominant view was that the effective leader should be concerned with both employee welfare (human needs) and productivity concerns (organizational needs). The studies conducted at Ohio State[7] which resulted in the development of the Leader Behavior Description Questionnaire, isolated these two dimensions as important determinants of effective leadership. Numerous studies conducted between 1945 and 1965 concluded that effective managers would be high in both dimensions.

Since the early 1970s, with the introduction of contingency theory, it has become evident that there is probably no one best way to supervise employees; that is, the situation determines the degree of structure or of consideration needed. In some cases, at some times, it is important to provide close and direct supervision and to focus on task performance. At other times and in other situations, more employee autonomy should be allowed and administrative support provided. The administrator's job then, is to recognize the differences in employee needs and abilities as well as the variations in the situation. Effective leaders will then be able to alter their style to accommodate these two factors.

Glickman's model of developmental supervision provides an excellent example of contingency theory.[8] The contingency factors which must be taken into account in this model are the ability and the commitment (needs) of the employee. A custodian with adequate ability who enjoys his or her job and takes pride in his or her work will require less direct supervision than one who has limited ability or who has low organizational commitment. Able individuals who must improve their performance yet who care about the quality of their work can be treated in a more collaborative, supportive way than those who either do not care or who do not have the ability to improve on their own. A continuum of managerial behavior will range from very directive to very non-directive and will depend on a diagnosis of the situation.

Expectancy theory as a leadership model has perhaps the most directly applicable relevance for personnel management. It is the work of the manager to provide a system wherein subordinates can expect that greater effort will lead to rewards. Thus, how one treats others, the amount of structure or consideration provided and the abilities or commitment of employees are all factors which have to do with either performance or rewards. What managers must do is strengthen the level of expectation that real effort will produce improved performance and that improved performance will lead to the acquisition of meaningful rewards. It should be noted that such rewards may be either tangible or intangible, extrinsic or intrinsic. The specific elements of this approach are applicable across a wide variety of positions within the organization.[9]

Following are some suggestions that can help administrators strengthen the expectancy relationship (excerpted from *Personnel: The Human Problems of Management*, Strauss and Sayles, Prentice-Hall, 1980, pp 83-84.)

1) To strengthen the likelihood that increased effort will lead to higher performance
    - Provide clear goals; that is indicate the nature of the performance desired (this is one element in structure);
    - Indicate how these goals are to be reached; for example through rules or training (another element in structure);
    - Make the work environment more pleasant (especially through providing support) so that work becomes easier;
    - Provide the tools, supplies and information needed to do the job;
    - Encourage the development of cohesive work teams and, through participation, obtain efficiency-improving suggestions from subordinates.
2) To increase the perceived likelihood that greater performance will lead to rewards
    - Work with higher management to recast the reward and promotion (career) system, so that rewards and promotions more clearly reflect performance;
    - Provide rewards of their own; for example praise.
    - Redesign jobs so that completed work becomes a reward in itself;
3) To increase the feeling that the relationship between reward and performance is equitable, monitor the rewards, ensuring that:
    - Rewards are commensurate with performance;
    - Rewards are distributed fairly;
    - Employees have opportunities to participate in deciding how rewards are to be distributed;
    - Employees have their grievances heard when apparent inequities occur.
4) To increase the value of rewards in terms of satisfaction:
    - Encourage participation and initiative, thus facilitating the satisfaction of egoistic needs on the job;
    - Develop (or influence higher management to develop) adequate methods of feedback, so that employees can more accurately perceive the effort-reward relationship

The types of behavior which may be characterized as leadership have been described by Getzels and Guba as a function of the interaction between role expectations and personality factors.[10]

The school business administrator's role carries with it a variety of expectations imposed by the organization, by superordinates, by subordinates and others. School business administrators are expected to focus on costs and benefits, budget statements and ledger sheets, processes and regulations, contracts and laws. Often superordinates want numerical answers to complex problems. Allocating, valuing, dispensing and monitoring are expectations which are imposed on the school business administrator.

At the same time, individuals come to their roles with a personal history—a personality made up of needs and characteristics developed throughout life. A transaction between role expectations and personality needs occurs, resulting in the fact that no two people fill the same role in exactly the same way. To the extent that the individual's needs for acceptance, belonging and affection dominate the expectations of allocating, dispensing and monitoring, that individual will display a more personal, perhaps political behavior. To the extent that role expectations dominate the personality, that individual will display more impersonal, organizational (bureaucratic) behavior. School business administrators, by virtue of their role expectations, are apt to consider the world in cost/benefit terms. Efficiency goals often take precedence over other values. Such expectations and their impact on behavior should be understood by those who would assume such roles. The same interactions between role and personality should be considered in the management of subordinate personnel. Certainly, individuals who are given power over other individuals should be introspective enough to recognize the origins of their own behavior.

Practices

The history of personnel management in organizations is not a long one. Many school districts do not specify personnel functions as a separate administrative role. Among those that do, the function is often shared with other job titles, sometimes given to an assistant superintendent level, sometimes director level and sometimes is completely decentralized and allocated to other administrative positions.

Originally serving only a centralized record-keeping and employment function, personnel directors or managers were often "leftover veteran employees" or glorified functionaries with little responsibility and no authority. Gradually, with greater understanding of and importance given to employee problems and considerations, the personnel function has assumed greater importance.

The American Society for Personnel Administration (ASPA) published a brochure entitled "Careers in Personnel and Industrial Relations," which lists several major activities:

- Employment and Placement
- Training
- Labor Relations
- Wage and Salary Administration
- Benefits and Services

A list of the various responsibilities of personnel managers is included in the ASPA publication. It includes:

employment
employee relations
personnel records
recruiting
retirement program
labor relations
organizational development
communications

compensation
training and development
insurance
performance evaluation
safety
staff planning & forecasting
medical and first aid
recreation
legislative awareness
pension planning
protection and security
leisure activities
food services

Castetter lists eleven general functions of personnel management in educational administration. These include:

- Manpower Planning
- Recruitment
- Selection
- Induction
- Appraisal
- Development
- Compensation
- Collective Negotiations
- Security
- Continuity
- Information[11]

Staff planning places the personnel function squarely at the center of the organization. It requires that personnel considerations include the long-range goals of the organization, the mission of the organization, forecasts about changes over time, budgetary considerations and other factors which will influence the need for and characteristics of personnel. Community trend indicators, pupil enrollment projections, condition of facilities, current staffing patterns, projected service needs as well as anticipated costs and revenues are all planning considerations which affect the staffing needs of the system and for which data should be gathered and studies conducted. Staff planning requires a careful study of the system as it is and a projection of how it will be. It requires an assessment of all positions (position descriptions), the need for job design and redesign considerations, staffing patterns and staffing ratios, support personnel, administrative needs and current policies in force as well as needed policies. "The ultimate aim is to resolve key personnel decisions, including the types and number of people needed by the organization now and in the future. . . ."[12]

Wilbert Scheer credits Tom Bossard, assistant director of the school of business at Indiana University, with the following list of seven activities of a comprehensive personnel program:

- Research and Standards
- Employment
- Education and Training
- Safety and Health
- Employee Activities
- Wages and Salaries
- Benefits Administration[13]

Scheer adds labor relations to Bossard's list and categorizes these activities into three kinds of functions: keeping jobs filled, helping employees grow and administering necessary duties.

"Research and standards" conform to Castetter's staff planning category. Computer technology permits management to use employee records more effectively. In addition to personal data such as age, experience, education and training, it is also possible to maintain a work history on employees. Where such information is kept, it is possible to develop staff profiles to answer a variety of questions helpful in planning. How many employees in what positions will be retiring by what years in the future? How many employees with what experience will be available to fill vacant positions or to be promoted? Who in the present workforce is interested or qualified for what other positions in the system? What projected shortages might be filled by retraining current employees?

This kind of personnel flow analysis, like cash flow analysis, allows the manager to maximize the human resources at the district's disposal. Such factors as changes in the supply and demand of labor play a significant role in planning. If a pupil projection forecasts a decline in enrollment of 30 percent over the next ten years, and if the impact of such a decline would necessitate the closing of several facilities, the demand for new employees in all capacities would be reduced. Similarly, the labor supply is affected by factors outside the manager's control even though recruiting may help to increase supply. Although a variety of variables interact to make prediction of labor supply a difficult process, demographics indicate that during the 1990s the supply of eighteen to twenty-four year olds will decline by fifteen percent and the supply of twenty-five to forty-four year olds will increase by twenty-five percent.

Research in the form of job analysis provides basic data about existing jobs in the system. These data go beyond simply listing the number of employees in various roles. Job analysis allows the manager to know the nature of the work and to clarify what people actually do in the jobs they perform. Two elements comprise the job analysis process: job descriptions and job specifications. Job descriptions focus on the content of the job. What tasks are performed? What specific responsibilities are a part of this job? Under what conditions is the work to be done? Job specifications detail the skills and background experiences the person must bring to the job. Strauss and Sayles[14] cite the U.S. Training and Employment Service, *Handbook for Analyzing Jobs* as an example of a complete job analysis format:

Components of Job Analysis:

- Job title, work location, salary range;
- Skill, experience, training and education requirements;
- Length of additional training required after employment;
- Previous jobs within the organization likely to qualify employees for this job;
- Jobs for which successful completion of this job qualifies employee;
- Analytical, technical and behavioral requirements: the kind of equipment to be operated (e.g., Mag. typewriter); interpersonal skills required (e.g., interviewing); technical knowledge required (e.g., linear programming); technical skills required (e.g., blueprint reading); physical skills required (e.g., to lift 50lbs 30 times per hour);
- Working conditions, such as cleanliness, noise, stress, travel, safety risks;
- Performance standards: for every type of skill and ability, it is important to specify both the frequency this skill will be used and the level of expertise required. A bookkeeper may use a computer check writing program infrequently and thus need a less developed capability than someone who runs checks weekly.
- Role relations: Who evaluates the employee? Who sends the employee directives that the employee must obey? To whom does the employee turn for supplies or information? Who depends on the employee for information?
- Time span of decision making and magnitude of discretion. A lower-level employee's work may be reviewed each day, whereas a manager's decisions may not be judged for a year or more. Some employees make decisions involving only a few dollars; others commit millions.[15]

The process of job analysis, typically done with interviews and surveys, will allow the manager to do more than gather information about the work. Assessments can be made about the appropriateness of existing job practices. Are all positions necessary, or has the organization unnecessarily created too many routine jobs? Can we find well-trained people to take on broader, less-specialized jobs? Should we consider reorganizing? Are jobs organizational units or have they become personalized? Individuals have a tendency to fill the role in personalized ways, with some expanding their responsibility and others restricting it. Are the standards appropriate for the position, or could the organization expect equal quality work from someone with less education and experience? Job design and redesign are products of the job analysis process.

Recruitment. By recruitment the necessary number and quality of employees are attracted to the system. Recruitment efforts are guided by immediate needs and long-range targets of the staffing plan and provide a pro-active method of assuring a pool of qualified applicants for work in the school system. Among recruitment activities are the following:

- a recruitment plan—for both professional and service personnel
- decisions about the number and type of personnel to recruit
- establishment of employment standards
- development of position guides
- preparation of forms—applications, information, notification and so on
- development of a recruitment budget
- management of recruitment correspondence
- systematization of screening procedures
- advertisement of internal and external vacancies

Keeping jobs filled is, of course, a primary personnel responsibility. The supply of qualified applicants and the organization's ability to attract them determine the success of the system as surely as the supply of money or materials. The process begins with recruitment which, to be effective, involves knowing the labor market and establishing contacts with sources of labor supply. When superintendents are hired in prestigious positions it is not uncommon that the labor market includes the entire country. Superintendents move from one state to another to take a job. On the other hand, more local sources (employment agencies, college and university placement offices, vo-tech school and so on) may provide primary sources of employee supply. Often recruiting takes on the character of public relations. During periods of oversupply, recruiting may not need to be done at all. However, in order to attract the best candidates or during times when there is an undersupply of labor, an important factor will be the organization's perceived attractiveness. Recruitment brochures and community information may help prospective employees feel good about the organization.

Selection. Selection of personnel has become a somewhat hazardous occupation. Selection processes must be devised which result in employment of the best possible candidate for the position but which provide for all the guarantees and protections to which applicants have a right. Factors involved in the selection process involve:

- describing the role expectations for the position
- assessing the personal characteristics needed to fit the role
- compiling appropriate information on candidates
- evaluating the candidate information in light of role and personal expectations
- rating the eligible candidates—perhaps interviews
- making the employment decision

- making the employment offer
- placing the employee in the most appropriate position

Application is usually the initial step in the employment process. It is also the first step in the selection procedure. The application format is an important tool in interviewing and selection.

The interview is an almost universal selection device. The interview provides an opportunity for the district to learn more about the applicant and for the applicant to learn more about the district. In practice, however, the interview may be the single most important selection component. Often the interviewer is looking for a "compatible" and like-minded candidate, and the interviewee has adopted a "choose me" attitude, trying to provide the responses that he or she believes the interviewer wants. Because there are no clear cut criteria for success or failure it is easy for the interviewer's prejudices to affect the assessment of candidate. It is during the application and interview process that care should be taken to assure that the employment rights of applicants are not violated.

Scheer lists nine areas in which the most common illegal application questions are asked:

1) **AGE:** The Age Discrimination in Employment Act prohibits discrimination on the basis of age against individuals between 40 and 65. Unless it is a qualification of the job, don't ask the age of an applicant until after hiring.
2) **HEIGHT AND WEIGHT:** The EEOC has found this question could be used to discriminate against women and certain nationality groups that fall below the American norm. The question could be job-related only if strength and height are valid job requirements.
3) **MARITAL STATUS:** After hiring is the proper time to ask this question for social security benefits and tax records.
4) **CITIZENSHIP:** Noncitizens are protected by the Civil Rights Act. Illegal aliens are not. You may, however, ask the applicant if he or she is in the U.S. legally and eligible to work.
5) **DATES OF SCHOOL ATTENDANCE:** Through this question an employer can reasonably estimate an applicant's age. You may inquire into an applicant's academic history, but requirements for even a minimal education must be substantiated as necessary to the job.
6) **DISABILITY:** You may only inquire whether any impairments would interfere with the ability to perform the job for which the applicant is interviewing. EEOC has jurisdiction over discrimination against the handicapped.
7) **ARRESTS:** An applicant's arrest record is no indication of guilt and historically minorities have suffered proportionately more arrests than others. A conviction record is not as clearly disallowed. To the extent that this question implies an absolute bar to employment, it is probably unlawful.
8) **MILITARY DISCHARGE:** This could be construed as indicative of minority discrimination since Defense Department statistics show that a higher percentage of minorities receive undesirable discharges. Asking whether an applicant has served in the military, however, is perfectly legal.
9) **NEPOTISM:** Questions about whether a candidate has friends or relatives in the district may reflect the district's intent of giving preference to friends or relatives and that, of course, would be discriminatory. If you ask the question because your firm has a rule against nepotism, you could be in violation because anti-nepotism rules appear to have an effect on women.[16]

Stated simply, the law requires that the selection process be designed to hire the most qualified worker—the best applicant for the job. Personal biases, stereotypes or favoritisms constitute denial of equal opportunities for more deserving applicants. In addition, the district is shortchanged by the employment of a lesser qualified employee. In general, those illegal questions tend to provide little useful information and serve only to reinforce the interviewer's biases, not to establish the candidate's qualifications. The major factor relevant to the candidate's qualifications for the job is his or her *ability* to perform the work involved. This ability can be measured in a number of ways: educational attainment; specialized training; experience and tests of ability to augment other measures.

The organization operates better and more efficiently when its regular employees are present and *physically able* to perform. Hiring a healthy individual, one who has the physical capacity to perform the work is essential, but does not imply that the physically disabled should not be hired. A physical disability does not always imply a vocational handicap.

Physical and mental ability are necessary for a person to obtain a job but the motivation to use that ability constructively is more important. It is important, then, to assess the candidate's *attitudes* about work, values and aspirations, feelings toward others and general approach to life at work and away. A good attitude may be required in jobs which involve meeting the public or providing services. Attitude assessment is difficult and is often subjective. Impressions from what was said in conversation or how it was said are often the only indicators. Information, however, may be gathered about the reason an individual is changing jobs or left the last job. References and personal contacts can also provide attitude information. Whether it can be assumed that a candidate will remain on the job long-term is often a strong consideration. Turnover, absenteeism, training and the necessity to reselect are all costly to the district. But this factor should not be used to discriminate against women on the presumption that their family or spouses will take precedence over employment.

Discrimination in any area of employment is illegal. Minorities, women, veterans, the handicapped, children and the elderly are protected by legislation. State and federal statutes prohibit discrimination against applicants or employees on the basis of race, color, religion, national origin, sex and age. The Fair Labor Standards Act establishes minimum wages, overtime pay and child labor regulations and, in addition, treats the issue of equal pay for equal work. The Occupational Safety and Health Act (OSHA) covers safety and health of workers. The Employment Retirement Income Security Act (ERISA) protects the interests of employees and their beneficiaries in pension and welfare plans. The rights of workers to such relationships as collective bargaining and conflict resolution procedures are guaranteed by various state labor statutes. The general purpose of these laws is to offer an equal employment opportunity to anyone who is qualified and who wants to work.

Induction. The induction process is one way the school system can contribute to the acceptance and success of the new employee, at a time when the newly appointed staff member needs the most consideration, guidance and understanding. Induction spans activities of the pre-appointment and interim through the probationary period. Included in the process may be: letters of welcome, a "buddy system," a new employee brochure, a preliminary conference with the boss, handbooks and rules, perhaps a listing of housing and confirmation of employment conditions (salary, benefits, fringes, extra pay and so on).

During the induction period the new employee learns the philosophies, policies and styles of management. A good induction can help the employee avoid starting off on the wrong foot. The first step in the process after the pre-employment period is the indoctrination: the "official tour" and review of employment procedures, such as working hours, length of lunch and break periods, location of various facilities, payday and method of payment, vacation and leave policies, holidays, employee activities and services and an overview of benefits.

Induction frequently includes a buddy system or a sponsor program in which the new employee is turned over to a senior employee who will help the newcomer become acquainted and assist him or her in gaining a feeling of belonging. The induction process may include a "drop in" late during the first day by the individual who interviewed the new employee. The reassurance of a familiar face can help the new employee overcome feelings of loneliness and fear.

While indoctrination occurs during the first day, orientation occurs later, perhaps once a month for all new employees; it is a group activity and is the district's attempt to provide official information to employees and answer questions after they have been around awhile. In many school districts, the induction process lasts through the end or the probationary period.

Appraisal. Performance appraisal judges an individual's past or present performance and should be designed as a mechanism to assist personnel to achieve personal as well as organizational goals. In most cases a due-process model is both workable and effective. Some combination of job description or job target discussion comprises a pre-appraisal conference. Observation of performance and recording of observations are generally used for feedback to the employee. A progress review or individual development (improvement) plan may also be part of the appraisal.

Evaluating employee performance is fraught with many problems. Most administrators are not trained to evaluate effectively. Many assessments focus on the personality of the employee rather than the performance. There are few valid instruments for appraising performance or value to the district. Appraisal often serves as the justification for demotion, termination or salary adjustment. This focus leads to employee defensiveness and does not provide a vehicle for constructive behavioral change. Increasingly, however, performance evaluation is being considered as input for the staff development program; this only becomes possible when evaluation procedures are linked to district-unit-position goals. As managers move toward a human resources perspective about employees, the employee becomes a co-worker with the manager's task to help employees perform optimally. Power is based on communication and cooperation rather than on coercion and fear. The personalized concept of people striving together replaces the mechanized and depersonalized bureaucratic ethos. As described earlier what the system or the administrator believes about employees will have a great effect on the way employees are treated.

Staff Development. Development programs are designed to continue the personnel function beyond locating and employing people for the organization. Development programs provide mechanisms for improving performance, developing skills and assisting in self-development of personnel throughout their employment with the system. In-service education, or staff development activities are most effective when tied to appraised needs of employees or to identified organizational needs. Staff development programs may be planned for all employee groups, from the board of education to those for service personnel. As in the provision of other types of services, a needs assessment process will identify activities and programs most directly related to the needs of employees and the district. Managers should examine the personnel strengths, skills and expertise of current employees to identify "in-house" consultants who may be able to train others in the system. The use of external consultants is the most commonly employed strategy. Films, videotapes, training materials, professional publications and other forms of information should be examined for their long-term usefulness as staff development resources. Such activities frequently include only single-incident overviews designed to raise awareness levels rather than develop skills. The planner of staff development should carefully examine the purpose for which activities are intended. Skill development activities require very different and more long-term sessions than are typical of awareness-type activities.

Compensation. The compensation of personnel is generally a centralized function and most often a result of collective bargaining. Perhaps the most directly relevant function for the school business administrator, the compensation program typically involves wage and salary administration and administration of fringe benefits. Extra work payments (such as overtime wages and merit or incentive pay) are also part of the compensation program. Effective administration of the compensation program involves the need to relate positions in the system to one another and determine their relative importance; the relative importance is then translated into worth in money. Individuals within positions are then valued in terms of their position and performance contributions and paid according to a specified salary structure. This job evaluation system can help avoid serious disruption resulting from gross inequity over time.

A wage administration program based on a job evaluation plan consists of four stages:

- Stage I: job description
- Stage II: job evaluation
- Stage III: salary structure
- Stage IV: salary administration

The job analysis and job description process described earlier in the discussion of staff planning provides the basis for an effective compensation program. Job evaluation is a systematic method used to objectively determine the relative worth of jobs within the system. Each job description is rated separately on the basis of such factors as skill required, effort involved, responsibility ascribed and working conditions involved in the job. In some cases, a point value may be assigned to various factors. A ranking of jobs is then achieved. Ultimately, where a job ranks in relation to all others will be translated into dollars. A typical method for setting rates for jobs is to take a representative sample of various grades of jobs and price them in the marketplace. It is on the basis of such study that the school business administrator may contribute to the collective bargaining of wages and salaries of employees.

Wages and salary administration involve determining the amount of increments between grades or job categories, the frequency of salary increments or raises and the authority which will be given to determine advances and other adjustments to salary. Often, wages are bargained and salary administration is a matter of carrying out contractual provisions. Increasingly, however, school districts are considering "extra pay for extra productivity" through such systems as bonus plans or merit pay schemes. Such programs will bring with them increased complexity in salary administration and increased responsibility for the business manager.

Collective Negotiations, Security, Continuity of Personnel. Security needs of employees have led them to struggle over the years to protect themselves, through various mechanisms, from the arbitrary use (abuse) of administrative power. To guard against threats to work security, employees have gained concessions from employers which have put in place a variety of protective devices. Collective bargaining, sometimes referred to more broadly as labor relations, is a function as often given to the school business administrator as to the personnel manager. Administering the bargaining process involves establishing goals and tactics for central administration. A second function involves collecting, storing, retrieving and using relevant data. Finally, the administrator is charged with contract administration as well as processing grievances. Other security provisions include continuing employment (tenure), retirement benefits, fringe benefits, unions and professional associations.

Scheer cites the biennial survey of the United States, in which the Chamber of Commerce lists five major types of fringe benefits that are offered to employees:[17]

- *Legally required payments:* old-age, survivors, disability and health insurance; unemployment compensation; workers compensation; railroad retirement tax and unemployment insurance; state sickness benefits insurance.
- *Voluntary or negotiated payments:* pension premiums; life insurance premiums; other death benefits; hospital, surgical, medical and major medical insurance; short term disability, sickness or accident insurance; long-term disability, salary continuation; dental and vision coverages; discounts on goods and services purchased; employee meals furnished or cafeteria subsidy; miscellaneous items such as cost of clinic, credit union, recreation.
- *Time away from job not deducted from pay:* paid rest periods, paid lunch periods, wash-up time; check cashing time; clothes changing time; get ready time.
- *Payments for time not worked:* paid vacations and payment in lieu of vacations; payment for holidays not worked; paid sick leave; paid leave for national guard or reserve duty, jury, witness or voting pay allowances; paid funeral leave; marriage leave; personal paid leaves of absence.
- *Other items:* profit sharing payments; Christmas bonuses or other supplemental compensation; service awards; suggestion awards; education expenses and tuition refunds; special wage payments ordered by courts, payments to union stewards, etc.

The job-security concern of most urgency to employees is, of course, the possibility of loss of income. Such salary continuation benefits as sick pay, disability insurance, health insurance, life insurance and retirement income are among the most important to employees. The cost of sick pay is absorbed by the district since weekly or monthly wages continue with no deductions. The other, much costlier items require the system to purchase insurance, making the cost of premiums equal to the value of the benefit.

Insurance premiums are a sizable amount of the cost of the benefits program, but the biggest cost to the system will probably be for time not worked. Every time an employee is excused from work without a commensurate loss of pay, the cost of this fringe is increased. In addition to sick pay and personal leave, these also include severance pay, "buy-outs" such as one month pay in lieu of notice, full pay while on jury duty, time off for voting, funeral leave and all types of other paid leaves of absence. The major items, for many classified employees, are paid vacations and holidays: a one-week paid vacation for everyone will cost $^{1}/_{52}$ of the total payroll. As the average time goes up so does the cost. The typical period is two weeks per employee ($^{1}/_{26}$ of the total payroll). Add to this the cost of paid holidays and it becomes obvious why these two benefits are the most costly. There are six generally recognized holidays: New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas. Most districts have added to these until the average number of paid holidays is ten. Taken together, fringe benefits cost the district a lot of money. They will range anywhere from 30 to 40 percent of payroll; yet they are so well known and accepted that they are generally expected and taken for granted.

Continuity of personnel service includes two types of activities. One type is concerned with the health, safety and mobility of continuing personnel; the second focuses on members who are voluntarily or involuntarily leaving the system. These activities include administration of leaves, substitutes, health service and insurance, safety on the job, promotion, demotion and transfer of employees; for those leaving the system the factors include procedures for separation, resignation, dismissal, lay-off, disability, retirement and death.

The health and safety of employees are of concern to the organization as much for humane as for economic reasons. Time lost to work due to physical illness or accident is a loss to the organization as well as to the employee. Many private sector companies require (and pay for) regular physical examinations, first aid on the job and even clinics for employees. Employer concerns about the health and safety of employees are also evidenced in such programs as anti-smoking or quit smoking campaigns (workers have sued for and won the right to a "smoke-free" work environment), alcoholism treatment programs and drug addiction prevention and treatment. More recently, stress and stress-related problems have been addressed. Similarly, "wellness" programs which promote mental and physical health have become popular as a new fringe benefit and as a preventive program for presumed employee health related programs.

The Occupational Safety and Health Act of 1970 (OSHA) requires all employers to protect and preserve human resources. Beyond this most organizations have come to recognize that such protections are not only the worker's right but are the right thing to do. Given the amount of social mobility in our society, not many employees stay their entire working lives with one employer. While most terminations are voluntary some are employer initiated. Some employees resign due to unhappiness or dissatisfaction with some aspect of the job or the system. Others leave to find what they perceive as a better job. The single biggest reason for leaving is, they feel, inadequate salary. In addition, dissatisfaction may be due to job pressure or to the attitude of management.

A small number of employees are fired from their jobs. Typically, the manager takes such action due to unsatisfactory performance or a bad worker attitude. The release of an employee for cause is generally preceded by warnings and attempts by the administrator to help the employee improve. Documentation both of the warnings (citing deficiencies) and the suggestions for improvement are primary elements in a due-process model of involuntary termination.

Other considerations in the "continuity of service" issue include severance pay, lay-off procedures, recall procedures and retrenchment policies (sometimes known as RIF). As school districts are confronted with declining enrollments and reduced revenues, the possibility of retrenchment must be addressed and discussed within this text. This involves painful adjustments such as reduction-in-force and school closings. Here, it is not only the marginal worker who is released, but also many capable and productive employees. Caring organizations will seek a variety of ways to assist employees. These might include attempts to absorb extra workers into other jobs, assistance in applying for and finding jobs elsewhere, early retirement incentive programs and even job sharing programs.

Early retirement incentives typically involve some form of "buy-out" before the normal retirement age. Typical programs offer partial salary spread out over a year or more, along with extended benefits. Eligible employees will generally be required to have attained a qualifying number (i.e., 65) by a combination of age and years of service. In return, employees who accept the incentive are terminated from employment, receive the incentive payment and qualify for regular retirement at reduced rate or full rate depending on age and state retirement statutes. An advantage to the early retirement incentive is that reduction in the work force can occur at the high cost end of the salary scale. In addition, early retirement involves employee choice rather than forced termination and represents a demand option which may be viewed by employees as a fringe benefit rather than a penalty. Finally, early retirement incentive programs may provide the opportunity for school districts faced with aging staffs to infuse "new blood" into a potentially stagnating system.

On the other hand, early retirement incentive programs are optional, not mandatory. While the number of employees is reduced, there is no way to control which employees will choose to exercise their option, and there is no guarantee that the most expendable employees will choose to retire. Perhaps more importantly, the long-range costs of such a program are not clearly understood. It seems clear that if early retirees are allowed to remain in insurance groups the premium costs of such insurance will rise for the entire group. Similarly, the long-term commitment of dollars to the support of past employees may result in "blind commitments" which the district may not easily be able to maintain later.[18]

The Information System. The information system of personnel administration facilitates the search for processing and dissemination of information useful to problem solving and decision making. Design and maintenance of an information system provides the vehicle for recording and reporting information about people in the organization. The management information system helps maintain stability and growth in the system, is used for allocating and managing scarce resources, evaluating the consequences of organizational changes and understanding, monitoring and explaining programs more thoroughly. Computer capability greatly facilitates the use of a management information system.

Participants

In many ways the theories of management of organizations have proceeded from assumptions about the humans who populate these enterprises. Whether one proceeds from a classical approach to management, a human relations approach, a human resources approach, a socio-political perspective, an open systems view or a contingency theory of management the basic assumptions which govern the approach are those which seek to explain worker motivations. Are employees motivated by fear and greed, by social rewards, by the need for achievement, by informal group norms, by higher order Maslowian needs, by the process of social exchange, by clearly communicated expectations, by intrinsic or extrinsic rewards?

Clearly the meaning of work has changed in our society. From a time when an agrarian society formed a concept of work as noble and purifying, through an industrial view of work as alienating and dehumanizing, the concept has taken on new meanings to different generations. No longer do people gain their identity by their work. Indeed, Robert Dubin wrote that for most people, work is not their central life interest.[19] Likewise, Robert Presthus described three types of adjustment to organizational life as: 1) upward mobiles, 2) indifferents, 3) ambivalents. Upward mobiles are those who "buy into" the work place, receive their rewards from work and strive for more. Ambivalents are those who want the organizational rewards, but will not or cannot conform in order to get them. Indifferents are those who find rewards elsewhere. Work is a means to some other end in life. These people do not "live to work," they "work to live."[20] Presthus, like Dubin, says that indifferents comprise the greatest percentage of the modern workforce. Whether one assumes, then, that the American work ethic is dead or has been changed, it is important to try to understand why people work and what rewards are most meaningful to them.

Early in the history of managerial thought, it was assumed that workers were primarily economically motivated. The genesis of such motivation was seen as greed. People could be enticed to increase their performance through such incentives as piece-work pay. Bonus plans, merit pay schemes and other extra pay for extra work plans are based on the concept that worker motivation is a function of economic rewards.

The alternative to financial incentives was coercion; workers whose productivity could not be stimulated through financial incentives were thought to be lazy and would need to be forced to perform. Thus, greed and fear were thought to be the major motivators of workers. Coercion is still considered to be a major motivating force by many managers.

The human relations movement saw worker motivation as a function of individual personal needs satisfaction. Basing theories of motivation on the work of Abraham Maslow, Douglas McGreggor, Frederick Hertzberg and others, the human relations advocates assumed that worker productivity was a function of satisfying personal needs and thereby increasing satisfaction with work. Workers were thought to be motivated by democratic management and participatory decision-making practices. Social and psychological rewards replaced greed and fear as the predominant motivators of interest. "A satisfied worker is a more productive worker" is the credo of the human relations manager.

Human resources concepts of motivation are similar to those of human relations, but with a subtle twist. If the assumption about worker motivation is that productivity is a result of satisfaction, then the manager's task is to provide a work environment where worker satisfaction will be maximized. The body of research, however, is equivocal in terms of the relationship between productivity and satisfaction. It is clear that some relationship exists, but not the direction of that relationship. Human resources managers assume that people derive their greatest satisfaction from their accomplishments (productivity). That is, when people achieve, perform, accomplish their work effectively, they derive satisfaction and their morale is improved. Under such a perspective, the task of the manager is to help the employee achieve better results. The manager becomes a facilitator to assist the worker to achieve greater effectiveness. From such accomplishments the worker will derive satisfaction. Figure 11:1 describes the nature of these assumptions about the motivation of workers.

Figure 11:1 Theoretical assumptions about the motivation of workers.

Theory	Motivator	Presumed Outcome
Early theories (Scientific Management, Classical Mgt.)	Greed/Fear	increased productivity
Human Relations	social rewards satisfaction	increased morale and productivity
Human Resources	increased effectiveness (productivity)	increased satisfaction and morale

Etzioni's classification of organizations on the basis of the type of compliance on which they rely is a useful conceptualization of worker compliance. Three types of compliance are identified: 1) coercive, 2) utilitarian and 3) normative.[21] Coercive compliance is, of course, given only in response to the use of or the threat of force. Coercion acts as a motivator when employees perceive that the power of the administrator will be used in a punitive way unless they conform. Utilitarian compliance is given when employees perceive that the conditions of exchange (what's in it for me?) operate in their favor. Such compliance is simply a bargain between the organization and the employee. Normative compliance is given when the employee accepts the values and norms of the organization or manager as congruent with his or her own and willingly complies out of a sense of commitment and devotion.

This sense of willing compliance is used by Weber in his description of authority. Weber distinguishes the power relationship from the authority relationship between the manager and the worker. Power is described as the ability of the manager to impose his or her will on the subordinate, *despite resistance*. Power is vested in the manager and is imposed downward on the employee. Authority, on the other hand, is described as having an element of willing compliance. This willingness to comply, to suspend one's own criteria of judgment in favor of that of the manager, implies that authority is vested in the subordinate—the subordinate grants the manager legitimacy by his or her willingness to comply. It is this willingness, this normative compliance, that distinguishes leaders from those who are simply organizational officers.

Finally, the administrator must take into account the effects of culture on employees. Employee characteristics such as sex, race, ethnicity, handicapping conditions, religious orientation, age and more recently even life style have become important factors in relation to understanding and addressing employee motivation and needs. Affirmative action mandates, civil rights statutes and fair labor practices acts have mandated universalistic treatment of individuals. As cultural norms have changed, it has become increasingly important for the employer to develop greater understanding of the individual human needs of employees in terms of motivational factors, as well as demonstrate simple consideration and humanity.

Summary

Personnel management is as much the purview of the school business administrator as it is of any administrator in the district. Those who are charged with responsibility for the work of the organization and who must accomplish it through the efforts of others are personnel mangers in the broadest sense. Successful and effective managers will possess an understanding of themselves, the organization and their employees. This chapter has attempted to describe some understanding from a theoretical point of view about each of these elements. While the role of the school business administrator may incorporate only some of these elements, this chapter has described the personnel function in a "generic" sense.

In the world of the school business administrator, everything translates into either revenues or expenditures. Indeed, the major function of the school business administrator is to serve as the steward of the organization's funds. Budgeting, purchasing, payroll, cost accounting and other functions typify this stewardship. Increasingly the school business administrator is expected to have obtained expertise which manages the school district's money and, in some cases, adds to revenues through cash-flow management and investment strategies. This process of "revenue management" involves technical skills and knowledge of economic and legal principles and practices. The process of "expenditure management" is perhaps the more typically understood aspect of the school business administrator's job. Budget preparation, forecasting and estimating, cost accounting, purchasing and paying the bills are all elements of such a function.

Several reasons exist why the school business administrator should possess an understanding of important elements of personnel management. First, every administrator who has subordinates, whether a line or staff administrator, also has a personnel function. The school business administrator, like all other district administrators must learn the human side of the enterprise. That is, such aspects as recruiting and selection, induction, appraisal, staff development and compensation are important determinants of the morale and the effectiveness of employees. The administrator who has attempted to change from a pencil-and-paper to a computer-office operation will understand the impact of individual needs, fears, expectations and other personality factors on performance. The management of an effective and efficient business office requires that the manager utilize effective personnel management practices. An understanding of employee motivation and worker satisfaction will assist the school business administrator in providing a work climate conducive to optimum performance within the business office as well as with other employees under the manager's direction.

In addition, labor-intensive service organizations such as the public schools allocate between 80 and 85 percent of their operating budget to personnel. Every administrator in the system serves some personnel function and every personnel function may be translated into expenditures. Each personnel function should be understood and appreciated by the school business administrator.

Finally, it is important that the school business administrator understands effective personnel practices since several functions designated as personnel practices are often assigned to the school business administrator. Those elements identified as having a direct impact on the business function include: compensation, insurance, safety, retirement programs, labor relations, pension planning, protection and security and sometimes, food services. The impact of such functions is so direct in terms of expenditures that many districts designate these as specific functions of the school business administrator.

Aside from managing these and other "personnel" functions which directly impact the business operation, the school business administrator should have such understanding to design an overall district financial plan which adequately reflects support of such district needs. Allocating involves valuing. Valuing involves understanding the relative worth of various elements. In these days of recision economics, it is important that the "recision-makers" understand the effects on the system and that such processes be consciously arrived at, rather than occuring as unanticipated consequences of a haphazard procedure.

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12

Legal and Managerial Aspects of Collective Negotiations

Thomas N. Jones and Grover H. Baldwin

Collective negotiations is simply one way in which an employer interacts with a large group of employees. Another way is for the employer to contract individually with each employee. Negotiation is a technique applicable to all phases of an employment relationship. Thus, an examination of the legal aspects of collective negotiations in public education must be concerned with many items in addition to contract bargaining. A number of issues that arise when individuals deal with governing bodies must be considered, as well as the difference between collective bargaining and the requirement in some states that the public employer simply "meet and confer" with employees.

When true collective negotiations occur, law has developed regarding the nature of an appropriate bargaining unit. There are restrictions on the topics which are properly subject to collective negotiation when employment contracts are being designed. Since contract negotiation is rarely trouble-free, when breakdowns in the negotiating process occur, the law has evolved several processes for resolving conflicts.

Legal issues in collective negotiations do not end once a contract developed through bargaining goes into effect. Invariably it becomes necessary to resolve disputes which arise during the term of the contract. This process, too, will be considered.

The legal impact of collective negotiations on the traditional "management" rights of school boards is significant. Major issues will be dealt with in the first part of the chapter while management responses are explored in the second.

Finally, the educational field is in flux in the face of changing enrollment patterns, budget cutbacks and calls for reform of America's educational process. The first portion of the chapter will close with a discussion of the present trends in the law of collective negotiations in public education employment.

Constitutional Considerations

When a governing body is the employer, constitutional issues automatically arise. The federal and state constitutions define the rights of an individual interacting with government. These rights continue to exist even when the individual is a teacher (or other school employee), the interaction is through an employment relationship and the government involved is simply a local school board. All laws or regulations involving public employees must harmonize with constitutional protections.

When school employees protest a local ordinance or regulation of a board of education and the conflict is litigated, the offending requirement is evaluated against the appropriate constitution. Most laws and regulations are upheld because they will meet the minimum standard of being rationally related to promoting a legitimate governmental interest. However, when a public employer tries to interfere with a fundamental right of its employees or draws distinctions among them using illegal discriminatory grounds, the courts are quick to uphold the individual employee against the employer. Such laws or regulations are upheld only if they reasonably promote overriding governmental interests. In recent years, the most successful challenges have been to legislate restraints on joining labor organizations.[1] These restrictions are generally unconstitutional, violating the employee's freedom of association. Statutory restrictions on public employee union membership have been upheld only when they are limited to managerial or supervisory personnel. However, the courts have not been eager to find that the right to join labor organizations imposes a constitutional duty on the government to bargain collectively. The duty to bargain collectively is imposed by statute, rather than by any constitution.[2] In most states where the legislature has imposed this duty, the laws have been found constitutional.

The Duty to Bargain

When state law permits collective bargaining, the employer has the duty to deal with the public employee organization. Both sides must bargain, but neither must agree. All that the law imposes is a duty to bargain "in good faith." This duty is ongoing and has different meanings at various stages of the negotiating process.[3] At the very beginning of contract discussions, it means that neither side can insist that a particular topic must be discussed first. Good faith bargaining requires both the employer and the employee organization to present demonstrably reasonable proposals. When requested, the facts and projections used to develop a proposal must be made known so that informed negotiation can occur. Finally, the requirement of good faith bargaining continues after an agreement is signed; unilateral changes in topics subject to collective negotiation will be struck down by the courts.

Public Labor Relations Boards

With the advent of public employee's labor organizations has come the formation of public labor relations boards by the state legislatures. These administrative bodies serve by resolving contract disputes and breakdowns in negotiation, evaluating the terms of dispute settlement and occasionally imposing penalties on either employers or employee organizations found in violation of fair labor practices. Board authority varies from state to state, being dependent on the specific statutory grants of power. Public employee relations boards, given a broad grant of jurisdiction, hold hearings, make findings and issue orders as their function. Generally, this behavior is not an unconstitutional usurpation of the power of the courts. However, in states where statutes covering broad board authority are narrow and specific, judges will often restrict boards' actions to the letter of the law. The law recognizes that an administrative agency can exercise only those powers explicitly granted to it by the legislature.[4]

The Legislature Veto Problem

In the private sector, contracts developed through collective bargaining go into effect upon ratification by union members. The employer who has consented to such a contract is bound by its terms. When the employer is a local school board, however, another layer of approval is required before an agreement can be finalized. Any terms of the agreement that require expenditures of government funds may be in jeopardy even when the parties to the contract, the employer and the employee organization, have agreed. If a statute so provides, the contract is still subject to approval by the appropriate fiscal body before it becomes binding.

This risk, though rarely contemplated, is by no means an oddity restricted to a few states. In 1982, when thirty-one states had provided for collective bargaining by at least some public employees, twenty-one had statutes clearly stating that all negotiated financial terms were subject to legislative approval.[5] In the other ten states, the state constitutions stipulated that only the legislature (as opposed to any negotiating team) had the power to allocate state funds.

Typically, a legislative veto of financial terms of a negotiated agreement occurs in one of two ways. Either the contract is negotiated and takes effect after the legislature has passed the current year's appropriations, or the legislature fails to appropriate sufficient funds to cover increases in a multi-year contract. Whenever the financial provisions of a negotiated agreement are vetoed, only the remaining non-economic terms may be enforced.

Collective Bargaining vs. "Meet and Confer"

As of 1984, education employees in at least forty states and the District of Columbia may bargain collectively or meet and confer with the local school board.[6] As already discussed, collective negotiations impose a duty to make proposals and counter-proposals in good faith. There is an unstated expectation that all items agreed on will be written down, signed by both parties and henceforth regulate the employment relationship. Statutes requiring collective negotiations are usually modeled from the National Labor Relations Act (NLRA), which governs employment relations in the private sector.[7]

The situation is much different in the nine states where the only duty is for the employer to meet and confer with the employees.[8] In these states, the laws applicable to labor relations of public employees differ significantly from those affecting the private sector. Most noticeable is the retention of a higher degree of managerial discretion in the public employer.[9] Conversely, public employee organizations have far fewer rights in states mandating "meet and confer." The employer's only duties are to meet at reasonable times and to discuss proposals submitted by the employee's representative.[10] The employer need not act on any of these proposals. There is no written statutory expectation that an agreement will be negotiated. Nothing need be reduced to writing.

An interesting anomaly in the usually strict dichotomy between the duties to collectively bargain and meet and confer is presented in eight states. In seven of these jurisdictions,[11] the local school board must join in collective negotiations on certain issues. These are typically related to wages, hours and other conditions of employment, the so-called mandatory topics of bargaining which will be discussed in greater detail later. The legislatures in these states have imposed an additional duty to meet and confer on other topics. This second group of topics generally involves managerial choices and policy decisions that impact less directly on teachers and other school district employees. Finally, the legislature in Nebraska has reversed this order: the employees' organization first submits a request to meet and confer with the school board; if the employer refuses the request, the state Commission of Industrial Relations can order collective bargaining.

Appropriate Bargaining Units

Elementary/Secondary Education

When a school district has only a few employees, there is no inherent difficulty in bargaining collectively with all district employees who have similar interests at once. In fact, the general pattern across the country is that bargaining units are district-wide in scope.[12] However, when a school district has a larger number of employees, the dynamics of the workplace tend to more closely resemble that of privately employed organized labor. Not surprisingly, a number of states have statutes specifying the acceptable composition of bargaining units of public employees. In addition, when two rival teachers' associations present differing philosophies on the issue, the dominance of one over the other in a school district can influence the composition of the bargaining unit.[13]

While particular state laws may differ, typically units for certified teachers exclude custodial and clerical workers. The basis for this is found in private employment labor law where bargaining units are structured to contain only those employees sharing a "community of interest" in similar job requirements, hours and work environments. The issues become complex when it is necessary to decide what other employees may be included in a unit with classroom teachers. In most jurisdictions, specialty teachers and permanent substitutes are included in the unit. The determination is based on the amount of time spent in the classroom. Using the same standard, per-diem substitutes generally are excluded from the teacher's bargaining unit. Currently, the problematic areas involve whether to include coaches, teacher's aides, school district coordinators, department heads and laboratory personnel.

The most frequent factor for excluding certain personnel is administrative or managerial function. In some states,[14] publicly employed administrators have bargaining rights. In nine of these states they must form separate units, at least in larger districts.[15] It is on the issue of including supervisory personnel that the two major teacher's associations differ sharply.[16] The National Education Association (NEA) is profession-oriented and tends to view all professional employees as equal parts of the education team. The NEA generally disfavors separating classroom teachers from supervisors when bargaining collectively with local school boards. The American Federation of Teachers (AFT) takes the more traditional labor view found in private employment. Focusing on the teacher as worker, the AFT generally regards supervisors as part of the management that teachers bargain against.

Higher Education

Different issues develop when forming bargaining units in colleges and universities. Collegiality is a valued element in this setting. Ideally, power and authority is vested in a body composed of all of one's peers. University faculty members sit on school-wide governance committees; academic departments are frequently run on a chaired committee basis. The question of whether any or all of these traditional practices transform the faculty members involved into supervisors unable to join the bargaining unit has caused some concern. Courts have recognized that collegiality defies the traditional labor/management dichotomy.[17] The law has resolved, however, that the faculty involved in a collegial structure serve as advisers and make recommendations, rather than bargain with the university.[18] It is necessary to note that both the university and the faculty's exclusive bargaining agent have the option of delegating bargaining authority to the collegial governance committees.[19] Furthermore, the role of the collegial structure is a permissive subject for collective negotiations.

Appropriate Subjects for Bargaining

There are three categories of topics when bargaining in the public sector: mandatory subjects, permissive subjects and unlawful subjects.

Mandatory Subjects

As the name indicates, mandatory subjects are those on which the employer is required to bargain in good faith until impasse is reached, in jurisdictions which require collective bargaining. It has been said that the public sector places a great reliance on statutes to determine the exact scope of bargaining.[20] Generally, statutes mandating subjects to be collectively negotiated are modeled on the Taft-Hartley Act's triad of "wages, hours and other terms and conditions of employment." In twenty states the legislature has closely followed this language.[21]

Not surprisingly, much of the conflict between school boards and their employees revolves around interpretations of what constitutes "other conditions of employment." The legislatures or the courts in twenty states have directly addressed this issue.[22] In these states, the law provides a laundry list of mandatory subjects. Employers may not be required to bargain at all on unlisted topics. While law in each state differs, in at least some jurisdictions mandatory topics in elementary/secondary education include teachers' work loads, daily schedules, assignment of teachers to supervise extracurricular activities, grading responsibility, the inclusion of a "just cause" provision for teacher reprimands, contractual benefits other than salary, grievance procedures related to contractual benefits other than salary, grievance procedures to be followed in contract disputes, class size, prep periods, school calendars and lay-off decisions impacting staff or eliminating departments on remaining teacher's terms and conditions of employment. At the same time, other jurisdictions have decided that school boards do not have to bargain on class size, budget decisions, school calendars, daily schedules, the reorganization of departments, selection of extra-curricular activities, number of steps in the salary schedule, textbooks, the use of paraprofessionals or general education policy.

In higher education, mandatory subjects have been held to include class schedules, the right of faculty to select department chairs, conversion of non-supervisors to supervisors, faculty participation in tenure and promotion decisions, the duties of faculty members serving on governance committees and whether tenure is university-wide or restricted to department or school. But the courts have found that appointment of deans, decisions to restructure the college, composition of governance committees, the academic calendar, decisions to change physical facilities and quotas on tenured faculty are beyond the scope of mandatory collective negotiations.

Permissive Subjects

Permissive subjects form the second group of topics which are bargained collectively. Discussion of any permissive topic lies within the discretion of the employer. Permissive topics resemble the interactions between employer and employee in "meet and confer" states. However, a stable labor relations policy encourages the public employer to discuss a broad range of permissive subjects. Some states have statutory or case law articulating permissive subjects.[23] But in general, the lines between mandatory and permissive subjects are not clearly drawn.[24]

Unlawful Subjects

In some states certain topics have been declared to lie beyond the scope of collective bargaining. When a subject is covered by law or constitution, it cannot be negotiated. Thus, in some states, agriculture[25] and certain moral virtues[26] must be taught; in other instances, textbook selection and curriculum must lie with the board of education; and in still others the employee's organization can have no say regarding retirement benefits, termination of probationary teachers or any issue of managerial or educational policy.

Breakdowns in the Negotiating Process

Impasse

When the school board and the employee's organization becomes deadlocked following good-faith collective negotiations of mandatory subjects, they are said to have reached an impasse.[27] The mere refusal of one or both sides to meet with the other, or discuss any mandatory topic, is technically not an impasse. Rather, the refusal constitutes an unfair labor practice which can have dire consequences for the recalcitrant party. According to federal law, " 'impasse' means that point in the negotiation of a labor agreement at which the parties are unable to reach full agreement, notwithstanding their having made earnest efforts to reach agreement by direct negotiation. . . ."[28]

Only in Michigan does an impasse entitle a public employer to act unilaterally. In all other jurisdictions, the two sides must continue jointly to seek a solution. Once impasse has been reached, the negotiators have available a variety of techniques to resolve the problem. Frequently a specific series of procedures already have been detailed in a contract between the employer and the employees. When these procedures fail, or when no prior arrangements have been made, the laws of thirty-four states provide the steps that must be followed in that jurisdiction.[29] Many of these states also provide a statutory definition of "impasse."

Mediation

The most common first step in impasse resolution is the use of mediation.[30] Mediation is distinguished by its informality. An individual or panel having the confidence of both parties will seek to reduce differences, and perhaps propose compromise solutions. When the parties are unable to agree on a mediator, the public employee relations board of many states can provide one. Alternatively, the parties can agree to use the offices of any of several national organizations. These include the U.S. Federal Mediation and Conciliation Service and the American Arbitration Association. Occasionally state law will specify the use of such a group when the parties are unable to agree on a mediator.[31] However, because mediation is an informal process, any person respected by both sides can be selected.

Mediation is a voluntary process. It requires two sides that want to reach a settlement but find themselves unable to do so without the help of a third party. The process works best if the mediator is called in before the positions of the parties become rigid.[32] However, because mediation is informal and there are no sanctions available against a non-cooperative party, it cannot resolve all impasse situations.

Fact-Finding

Fact-finding is specified as the second step for impasse resolution in the laws of twenty-four states.[33] (In Maryland, Nebraska, Oklahoma and Wisconsin no mediation occurs prior to fact-finding.) Fact-finding is significantly different from mediation. A formal procedure, it involves the designation of an individual or a panel empowered to conduct investigations. Fact-finders conduct public hearings to which the requirements of due process attach: adequate notice to all interested parties and the opportunity to be heard. After deliberation and consideration of all evidence collected, the fact-finder issues a written report. This summarizes the evidence and contains recommendations for settling the impasse. Typically the report is first issued privately to the parties. In the law of several states it is made public, unless the parties resolve their differences within a statutorily mandated period.[34] While the recommended solutions are not binding,[35] the threat of publication of an unfavorable report is sometimes enough to prompt stubborn school boards and employee's organizations to change their bargaining positions.

Fact-finding differs in the public and private sectors. In private industry, a fact-finding report is usually sought only after a strike has been called. But when the employer is the government and employees are prohibited by law from striking, a fact-finder's report acts as a strike substitute.[36] It is not a procedure that always resolves the impasse. The success of fact-finding seems to depend on several factors: 1) whether the procedure is truly voluntary, or is mandated by statute; 2) the experience and negotiating abilities of the fact-finder and the representatives of the parties; and 3) the source of funds which cover the costly procedures. When the parties bear the cost, the results are better then when the state government pays.[37]

Arbitration

Mediation and fact-finding both depend on the potential of a neutral third party to restore a rational tone to negotiations. Generally, no sanctions compel the parties to cooperate except, of course, the pressure of public opinion. This is not always enough. In some cases it is necessary to resort to a procedure that forces an end to the impasse. Most often states which specify a step beyond fact-finding in their statutes choose arbitration.[38] Arbitrators unilaterally determine compromises to resolve an impasse. Arbitration can be used either immediately after mediation fails, or as the sole procedure mandated by the legislature, as in South Dakota.

In the private sector, arbitration is ordinarily distinguishable from mediation and fact-finding by its binding nature. Traditionally, the decision of the arbitrator is enforceable by the courts. However, the reality of the public employment sphere has altered this. In certain states arbitration is statutorily identified as non-binding.[39] In all states, except Connecticut, the decision of the arbitrator is binding only to the extent that the governing body appropriates funds to implement it. Since the threat of legislative veto injects an element of doubt into the finality of public employment contracts, some states have found it advisable to indicate that the board of education may agree to be bound by an arbitrator's decision.[40]

Other Solutions

Not all jurisdictions have opted to permit voluntary or statutorily mandated binding arbitration to end impasses in collective bargaining. Certain states have chosen more creative solutions.

In Florida, Hawaii, New Hampshire and New York the final decision is left with the "appropriate legislative body," generally the one with financial control of the contract. Decisions are to be made with the public's best interest in mind.

Indiana requires the terms of the previous contract to continue in force until impasse is broken. The employer can draw tentative individual contracts in the interim.

Kansas and Vermont utilize a process sometimes called "finality of decisions." Final resolution of disputes left after all other steps are ended is given to the school board, one of the recalcitrant parties. At first glance, this seems remarkably unfair to the employees. Effectively, the school board could refuse to resolve any disputed contract terms, knowing that ultimately it will dictate them. The protection against this is two-fold: first, such an attitude violates the duty to bargain in good faith and is an unfair labor practice. Second, the school board is an elected body and must remain aware of public sentiments. The declared advantages of finality of decisions relate to the fact that school boards are elected "governments."[41] Binding arbitration removes decision making from the people elected to determine educational policy. Finality permits these officials to control all issues that come up while running the schools.

In Nebraska, a "meet and confer" jurisdiction, failure of the parties to agree on an employment contract triggers an interesting result. Fact-finding is mandated, but the report is not binding. If a dispute remains, the Nebraska Commission of Industrial Relations can order the parties to engage in collective bargaining. As an alternative, the Commission is empowered to exercise control over a public employer and unilaterally set the employees' wages, hours and terms of employment.

Ohio permits the parties to mutually agree on binding arbitration or settlement by a "citizen's council." If the employer and employee organization refuse to agree, Ohio permits public employees to strike.

Finally, Wisconsin uses a modest variation of binding arbitration. As was mentioned earlier, arbitration ordinarily involves compromise between the final offers of both sides. But in Wisconsin the arbitrator must adopt one side's final position without modifications. This forces both sides to remain as reasonable as possible in making the last offer. There is no way for either the employer or employee organization to know which position the arbitrator will choose.

Resolving Disputes Arising Under Agreements

Grievance Procedures

Conflicts between a school board and its employees do not end once a contract has been signed. An individual or a group will complain that the employer has violated rights created by the contract. Such complaints are called "grievances." A leading commentator has observed that a major impetus toward public employee unionization was the absence of meaningful procedures for resolving grievances.[42] Typically, employee organizations strive to negotiate contracts that not only define grievances but also spell out procedures for both to follow when conflicts occur. This benefits not only teachers and other employees, but also the school board. A well-written grievance section in a contract avoids the possibility that the employees will seek to win concessions through grievances which could not be gained during collective bargaining. However, as of 1984 just thirty-five state legislatures had seen fit to address grievances by education employees in their statutes.

Procedures for resolving grievances can be provided by contract or by law. The statutes addressing the matter generally fall into two categories. In the first, the employer and employee organization are permitted to negotiate a grievance procedure which may include a provision for binding arbitration.[43] The state may offer arbitration services. A statutory grievance procedure is often available in case the contract is silent on the issue, or when the negotiated procedure is not invoked. This is the approach taken in twenty-five states.[44] Used by eight states, the second requires the parties to negotiate a grievance procedure and include it in their contract.[45] Occasionally these states will set out a procedure to be followed if the contracted system fails. In South Dakota and Virginia it is the employer's responsibility to establish grievance procedures.

When an employee feels that rights granted by the employment contract have been violated, a number of procedural questions immediately develop. The first is the timeliness of the initial complaint. The majority of employment contracts in the private sector provide a specific period of time within which a complaint must be formally entered.[46] This is becoming the case for many public employment contracts, either through statutory language or by negotiation. When no time period is specified, the legal doctrine of *laches* applies. Simply stated, this requires formal complaints to be made within a reasonable time after the employee learns that a right may have been infringed. Complaints by individuals who have "slept on their rights" lose the opportunity for redress. The question of what constitutes a reasonable time is within the discretion of the arbitrator. It is not unilaterally set by either the employer or the employee. These considerations also apply to the second procedural question, the timeliness of compliance with each additional step of the grievance procedure.

Unfortunately, from time to time, one of the parties misrepresents a key element on which, to their detriment, the other party relies. When this occurs, the procedural issue called "estoppel" is triggered. The party which made the misrepresentation cannot proceed further on the false set of facts. When the employee is the party guilty of misrepresentation, this means that the grievance will not be processed. Estoppel does not change the contract or any rights created in the employment relationship. It does preclude the continued assertion of those rights.[47]

A fourth procedural issue in grievance resolution is *res judicata*. *Res judicata* literally means that the subject has been settled in a prior judgment. Since the conflict has already been decided on its merits, it cannot be relitigated by the same parties.

When a grievance is being settled, the rules of evidence are far more relaxed than they are in a court of law. The primary concern is that both sides be treated fairly. In fact, there are no formal rules of evidence. An arbitrator is bound only by the constitutional restraints of due process.

A final procedural question is whether the employee organization should be able to decide which grievances are to be pursued through the full series of resolution steps. The alternative is to give individual employees the right to bring their complaints directly. If this second alternative is chosen, the question of who pays the cost must be decided.

Dispute Resolution Techniques

Most commonly, the first step in grievance procedures in the public sector is a verbal complaint to the employees' immediate supervisor.[48] Usually no written record is made unless the conflict cannot be resolved at this level. The second step involves a written complaint. Depending on the procedure set out in law or in the employment contract, this will be to an intermediate authority or a panel set up to handle grievances. The final step in twenty-seven of the thirty-five states which mention education employee grievances is binding arbitration.[49]

It is important to note that grievance arbitration, sometimes called "interests arbitration," is not an impasse procedure. Grievance arbitration is a procedure agreed to during collective negotiations of the contract. It occurs only when an employment contract is in force. Arbitration is provided by a neutral individual or panel. When binding arbitration is used, the arbitrator's decision is final and will be enforced by the courts, if necessary. The decision will not be overturned by the courts, unless it was made by an arbitrator acting outside his authority, there is strong evidence of an arbitrator's bad faith or bias, or the proceedings were inherently unfair to one of the parties.

An interesting question is the extent to which grievance procedures in an employment contract either supersede or are themselves negated by procedures contained in a statute. This is very much an open issue in many jurisdictions. In Florida, the courts have declared that an aggrieved school board employee has the right to elect between contractual and statutory remedies.[50] But in New Jersey, the law is that grievance procedures set by contract do not operate in situations already covered by statute, even when the procedures do not actually conflict.[51] This is similar to a holding in Nebraska that procedural due process requirements are not affected by contractual grievance arbitration procedures, even when the employee initiates arbitration.[52] However, at least one New York court has held that statutorily established procedural due process is "waived" by a collectively negotiated grievance arbitration clause.[53]

Collective Bargaining and Management Rights

In all jurisdictions requiring school boards to negotiate collectively with employees, there has been an end to unilateral dictation of contract terms by management. Employee organizations naturally want to control, as much as possible, all conditions affecting their members. Local school boards, however, are elected bodies retaining full responsibility to the community. It is not appropriate, and often illegal, for them to relinquish control over educational policy.

The duty to negotiate in good faith does not equal a surrender of the statutory mandate to supervise the operation of a district's schools and the subjects taught. However, a recent study shows that mandatory collective bargaining laws do affect the perceived abilities of school board members to fulfill the duties of office.[54] Not surprisingly, laws requiring binding arbitration to end impasse are seen as intruding the most into traditional management rights. According to U.S. Supreme Court, the "managerial decisions which lie at the core of entrepreneurial control" should not be restricted by collective bargaining.[55]

Elected officials are public trustees and their status as an employer does not alter this fact. The collectively negotiated agreement should spell out management's rights just as it does those of the employees. The following "model" language has been proposed:

> The Board of Education, on its own behalf, hereby retains and reserves unto itself without limitation, all powers, rights, authority, duties and responsibilities conferred upon and vested in it by applicable law, rules and regulations to establish the framework of school policies and projects including, but without limitation because of enumeration, the right:
>
> 1. To the executive management and administrative control of the school system and its properties, programs and facilities and the activities of its employees.
> 2. To employ and re-employ all personnel and, subject to the provisions of law or State Department of Public Instruction regulations, determine their qualifications and conditions of employment, of their dismissal or demotion, their promotion and their work assignment.
> 3. To establish and supervise the program of instruction and to make the necessary assignments for all programs of an extra-curricular nature that, in the opinion of the Board, benefit students.
> 4. To determine means and methods of instruction, selection of textbooks and other teaching materials, the use of teaching aids, class schedules, hours of instruction, length of school year and terms and conditions of employment.[56]

School boards may also find it advisable to include a clause banning strikes in negotiated contracts. The employment contract spells out the rights and responsibilities of both sides, and should contain no implied terms. This is the case even when state law prohibits strikes by education employees. Few laws have been effective in deterring teacher strikes, even when fines are imposed.[57]

Trends

As school boards seek to hold on to traditional management prerogatives, their employees are pressuring to broaden the scope of collective negotiations. There has been a gradual erosion of the subject matter lying within administrative discretion. In 1983, the American Bar Association prepared a list of some of the issues most likely to affect labor relations in education in the next few years.

Agency Shop Question. Agency shop, or "fair share," fees are collected from all employees regardless of union membership. An agency shop fee is money equal to union dues and fees. In a "fair share" system, non-union members are assessed a *pro rata* share of collective bargaining costs. The fees must be paid, as a condition of employment. The issue can be summed up as having a "free ride," versus having to purchase the right to work.

In 1977, the Supreme Court declared that these fees were not unconditional.[58] The only requirement is that a rebate be available to non-union employees who object to politically or ideologically motivated expenditures. A state of flux continues to exist over religious exemptions, and interpretations of "political or ideological purposes." In California, for example, the fees can be used in lobbying related to legislation affecting employer-employee relationships, as well as toward campaigns for or against ballot propositions affecting employee interests. Charitable and philanthropic uses are also allowed.[59] But a New Jersey court has found that some of these uses could be opposed to employee's individual ideologies, even when their status as employees might be improved.[60]

It should be noted that although such fees are not unconstitutional, they may not be valid under a particular state's laws. Where they are, a secondary issue is the appropriate sanction when an employee refuses to pay. Firing may violate state tenure laws.

The Duty of Fair Representation. Employee organizations must fairly represent their members against the employer. When a refusal to process a grievance is made in good faith, without arbitrariness or inexcusable neglect, the union has not breached its duty to the employee. Suppose, however, that an employee has initially suffered damages because of the employer. If the union fails to properly pursue the grievance to the final stage in a timely manner and the delay causes the employee to suffer more damages, the employer can recover this increment from the union. How employee organizations will react to this holding remains to be seen.

Impasse Arbitration. Even as more jurisdictions alter their statutes to allow for arbitration as the last step of impasse resolution, public employers in general are coming to regard strikes as the lesser of two evils.[61] Arbitration takes the final decision away from officials elected to decide such matters.

In addition, as was discussed at the beginning of this chapter, arbitration awards are not secure. They can be destroyed by failing to appropriate the funds necessary to carry them out. In the light of the recent economic slowdown, these considerations may well cause a swing away from impasse arbitration.

Merit Pay. The past decade has seen a reemphasis on "back-to-basics" education and a call for merit pay to exceptional teachers. While curriculum content is still very much a matter of policy set by local boards of education, merit pay clearly falls into the category of mandatory topics for negotiation. Teacher organizations tend to be very reluctant to support this concept. Perhaps this is because merit pay would tend to create competition and friction among union members, while unions strive to minimize such conflict.[62] A teachers' organization would be in a difficult situation indeed if requested to process a grievance that a member was wrongly passed over for merit pay. The complaint implies that the grievant was more deserving than the union member who received the increase. The easiest way for a union to avoid this situation is to avoid supporting merit pay. However, a trend may develop that school board employees will promote merit pay, if the employer concedes to a union demand in another area during collective bargaining.

"Sunshine" Laws. A number of states have passed legislation requiring all government decision making to be made in open, public meetings. States vary widely as to whether or not this requirement extends to negotiating sessions. In some jurisdictions, open negotiating sessions may be optional. When that is the case, neither side can unilaterally decide to hold negotiations in public.[63] State laws should gradually change to clarify this point. However, as of 1980 only twenty-four states had addressed the issue.[64]

Management Aspects of Collective Negotiations

Having examined the legal issues of collective negotiations, the management aspects of this process must be examined with specific concerns that are important to school business administrators.

Roles of School Business Administrators

While the school business administrator has traditionally played the role of providing information within the negotiations process, this role is expanding to include serving as a change agent charged with merging those complex aspects of school business management with academic administration. This change is increasing the demands on the school business administrator to include the ability to foresee and communicate financial trends as well as the day-to-day operations of the district. These data also include costs and revenues while matching these to the district's objectives thereby insuring cost effectiveness and efficiency within the district's overall operation.

This individual is recognized as a member of the strategic management team of the school district. The use of strategic management principles is paramount to the success of the business administrator in the collective negotiations process. The four aspects that make-up strategic management provide a pro-active stance on the part of the school district's management, and this stance is needed if school districts are to survive in the uncertain economic and changing atmosphere of education.[65] This strategic management process calls for all management personnel to move from the typical reactive stance of the not-for-profit, governmental agency where events control the organization, to a more creative, entrepreneurial stance that demands forecasting the future, being aware of trends in the total environment and planning for the long-term success of the district, both in academic and financial terms. This includes the foresight of planning to account for the overall effect that the district policies have on personnel through the collective negotiations process.

Initially, the school business administrator is concerned with: gathering information regarding the status and needs of the employees; trends in compensation; ranges and types of fringe benefits being offered by comparable school districts; analysis of the district's financial environment; and the overall goals of compensation as established by the school district management team. The concern of the district is to match the needs of the employees with the needs of the district to maintain and motivate the employees via a sound compensation program.

Second, the school business administrator deals with the organizational concerns, the positions of the various groups both inside and outside of the organization, all of whom influence management decisions. The school business administrator is concerned with the general tenor of the taxpayers and their willingness to support additional tax burdens. A final analysis of the ability of the district to pay is vital to the negotiations process. Further, the school business administrator is concerned with possible changes in the legislature and federal funding opportunities that yield revenue for the district.

Next the school business administrator is concerned with the financial aspects of the district. The resource requirements, funding possibilities, long-term sources of revenue and short-term debt funding are a concern. The accounting background and financial analysis skills of the business office become linked with the emphasis on the generation of various alternative programs for compensation, and the funding of those alternative programs.

Last, the school business administrator is concerned with the control mechanism and the establishment of the means to oversee the entire financial operation of the district, in order to maintain optimum utility of the program for all aspects of the financial and personnel areas. This measure of control is needed as the long-range program planned by the school business administrator will permit incremental adjustments to accommodate the changes in circumstances of employees and the entire work force and the objectives of the district.

Interwoven in this process are the strategies for negotiations. In the role of designer and developer of the financial information pertinent to strategies for negotiations, the school business administrator is concerned with each item in the negotiations package, particularly the financial issues. Once these items are recognized as part of the negotiations process, the administrator plans the bargaining objectives that might realistically be expected as the final outcome, as well as the range of possibilities. By measuring the impact of the various negotiating positions, the school business administrator permits analysis of the overall package to effect a solution to the various positions and to evaluate success of the negotiations process.

A Change of Focus

Negotiations will not be the same in the next fifteen years as they have been in the past fifteen years. This is due in part to the maturity of the participants in the negotiations process and the tenure of the statutes that provide a structure for negotiations between teachers' groups and school boards. Although early experiences provided traumatic conditions and adversarial relationships for both sides of the negotiations table, after fifteen years participants have had the opportunity to become familiar with the laws and processes and grow in maturity, reasonableness and responsibility.

The future negotiating environment is further influenced by economic conditions. Where the initial thrust of negotiations between teachers and school boards was for winning the issues of wages, hours and fringe benefits in an atmosphere of plenty, concerns for the future will center on job security, while continuing to push for salary parity with the private sector. It now appears that recession and, perhaps, economic recovery will be the norm for the negotiations environment, amidst the continuing decline in enrollment, loss of revenue and cries for quality and cost effectiveness in education. Other future issues are likely to include teacher evaluations, alternative pay plans, attempts to meet the external demands for quality within education and affirmative action plans as they relate to layoffs.

From the recent settlements between the United Automobile Workers and Chrysler and General Motors, the use of concession bargaining may well be used as a tactic to assuage the general population and maintain the status of the district, both financially and academically. However, regaining the items granted via hard negotiating strategies by the associations is not an easy task, especially when associations view their role as protector of the work force. This will necessitate both parties to adopt a new stance of collegiality to work for effective and efficient solutions of overall problems facing school districts.

In the area of public sector negotiations, one issue needing to be addressed is whether there really is, as suggested a commonality between the private and public sectors in the area of negotiations. While many states have adopted the system and strategies used in negotiations in the private sector in the area of education, there remains the question of whether the two sectors are really that similar. Support for this commonality includes the fact that little evidence has been found to suggest any real difference between public and private sector negotiations when it comes to the issues of allocation of resources and policy control.[66] This lack of difference is due to the nature of collective negotiations and the fact that both sectors are subject to the same external pressures for product quality and demands for change from the general public. Another similarity concerns the internally imposed constraints that come from the organizational structure and the members of the organization. In particular, is the effect of the budgetary cycle on the negotiating process giving rise to the "wait and see what the budget picture looks like before completing negotiations" attitude or the "hold the line once the picture becomes clear" attitude. In both sectors, the economic conditions are set to a great extent by external forces, and the role of the business administrator to plan for these conditions is increasingly more important.

A second study reinforcing the commonality concerned an investigation of the budget-making procedure and the effects of fiscal adversity on the collective negotiations process.[67] These findings indicated that in tight economic conditions, ability to pay was the paramount issue. Ability to pay includes the entire budget and not just salary and personnel costs. Applying these findings to school districts, it is recognized that in tight economic conditions: 1) management postures that there is no money for increases; 2) collective negotiations finish before, or about the same time, as the budget-making process; 3) tight economic conditions dampen the collective bargaining process and create a "negative" tone; 4) money settlements are more modest; and 5) most settlements require additional funding.[68] These findings point to the need for a different posture with regard to collective negotiations—one where all parties work together in a collegial atmosphere to overcome the adversities of the environment and resolve the issues facing them.

This is where the school business administrator's role as a change agent becomes important in providing for quality education, cost effectiveness and efficiency within the academic structure. With these environmental changes, the role of the school business administrator will resemble that of an accounting professional in the private sector who analyzes and evaluates both labor and management's proposals, gathers and prepares information for the various impasse procedures and establishes monitoring procedures for contract administration."[illegible]

The remainder of this section will deal with four aspects of collective negotiations that are of primary concern for the school business administrator—compensation management, salary administration, fringe benefits and the use of impasse procedures for resolving conflicts within the negotiations process.

Compensation Management

As indicated, one of the responsibilities of the school business administrator is to design, develop and implement the financial strategies which will enable the school district to remain solvent. Nowhere is this role more important than in the collective negotiations process which concerns itself with an estimated 70 percent of the budgetary costs of the district. Although many labor agreements are for a one-year period, the school business administrator is concerned with the trends and long-range effects of collective negotiations and attendant costs to the district for the next five to ten years. Further, the concern is for the entire compensation package for the employees and its relationship to the overall revenues of the district.

Compensation management is concerned with the entire range of compensation granted by the school board to the employee. Compensation includes the employee's salary with the traditional fringe benefits package, and other benefits, both of a cost and a "non-cost" nature. The school business administrator must select a mix of benefits that fit the needs of the individual employee, and at the same time meet the educational, financial and personnel objectives of the district. Recently, many firms within the private sector have moved to flexible, cafeteria compensation plans which permit individual employees to select their benefits or their total compensation package, based on individual needs. Such programs need to be examined for potential use within school districts.

Since the needs of employees and districts are unique, only guidelines can be offered concerning the planning and development of compensation packages. The following guidelines derived from the private sector which have been adapted for school purposes:

1. Clearly define the benefits currently offered by the organization. This includes a detailed listing of all benefits, both cost and "non-cost" benefits, and the reduction of complex benefits (such as hospitalization) to simple and single labels.

2. Define the current level of costs for each of the benefits. This aspect needs to be detailed and as clear as possible. One method might be to reduce

all costs of each benefit to a per pupil per day figure. This not only simplifies the process, but reduces the expenditures to an understandable level for the general public. This figure is computed by dividing the total dollar cost of the benefit by the number of employees receiving the benefit, then dividing that figure by the total number of pupils and dividing the resulting figure by the total number of days the district is in operation, including teacher days.

3. Return to the planning principles of strategic management to determine the realistic options for near-term and long-term improvement, or demand, for each of the benefits. For example, based on an aging workforce, with children beyond the "normal" orthodontic stage, a benefit for dental care including orthodontics, would reduce in value as a benefit, and hence be a cost to the district, while additional funding of retirement annuities might be a realistic rising cost.

4. Determine the cost of each of the near-term and long-term benefits. This calls for gathering information from providers and potential providers about various benefits, and analyzing results of surveys regarding benefits being planned by competitive, comparable school districts with the region. The school business administrator is concerned with the need to provide those benefits necessary to maintain the workforce within the district.

5. Determine the use of each of the benefits with the employee workforce. Gathering information about employees' needs, goals and desires, facilitates near-term and long-term planning for changes in compensation packages and links those changes to the overall negotiating strategies of the district.[70]

The process outlined is completed on an annual basis with planning for the long-term program and its effects. Such an annual reexamination of the compensation program permits a realistic meeting of the employee needs, as well as the incremental shifts needed to maintain an effective compensation plan while meeting the long-term goals and objectives of the management of the district.

The integration of compensation management with the objectives of collective negotiations and the principles of strategic management is an important facet of the changing role of the school business administrator. Tied to the analyses and planning process is the growing awareness of the need to merge compensation and benefits so that needs of both the employee and the employer are met. Additionally, there is the need to merge the reward system of the district with the management process in order for the district to fulfill its educational objectives.

There is a growing shift to provide after-tax and after-inflation compensation that allows for improvement in the employee's standard of living, while maintaining the costs to the district at a reasonable level. Further, as the nature of the workforce changes, and thus the needs of the employees change, management needs to integrate these two facets of compensation—salary and benefits—to meet the needs and provide for the caliber of employees needed within the district. This calls for a constant reexamination of the overall compensation plan, as well as the reward structure and alternatives compensation plans to meeting those needs.

Issues which appear to be a part of the future of compensation management for education include: compensation linked to national inflation via various cost-of-living adjustments (COLA); influences of state and federal legislation making it difficult to pay differentially due to charges of discrimination; and greater use of computerization in the personnel function, with emphasis on techniques for analysis of cost effectiveness and utility of the total compensation package."[1] The school business administrator must be concerned with productivity, academic excellence and cost effectiveness as well as the needs of employees. In the collective negotiations process, the school business administrator must develop and implement strategies which take into account these different emphases.

Salary Administration

Directly linked to the overall compensation program of the school district is the issue of salary administration. Although this area has traditionally been the domain of the personnel administrator, the school business administrator has an integral role in salary administration beyond the mere issuance of paychecks. As the consultant to the management team, the school business administrator is aware of the issues, problems and current practices within this area to provide maximum use of the revenues of the district to meet the district's and the employee's needs.

The area of salary administration has changed drastically and will change even more with the advent of merit pay plans and other alternatives to the traditional step salary structures. Part of this change is due to the demand for improved quality in education and the demand for assurance of quality of the teaching staff. Tied to this demand for quality is the lack of personnel in certain key areas and an overflow in other areas, all of which provide school district management with the opportunity to develop new salary structures to reward excellence.

There are additional issues affecting the planning and foresight needed by the school business administrator to prepare adequately for collective negotiations. Internal issues include the matter of equity—the fairness between job performance and job appraisal—which impact directly on the alternative and merit pay plans that districts, due to increasing public pressure, are considering. With these new plans come problems which must be anticipated and planned for by school administrators. These include: the subjectivity of the appraiser; the possibility of favoritism; the value structure which sees younger staff doing the job better; and the secrecy of the performance appraisal process that permits poor communication and the sense of inequity that can lead to high turnover among personnel and other morale problems.

External issues involved in salary administration include competitiveness with the surrounding market, both in public schools and in the private sector. This is especially true regarding persons trained in math, science and computer science who can command higher salaries and better benefits outside of education. Nonprofessional staff is also involved in this issue, particularly when the private sector in the local and regional area compensate workers at a higher rate and offer more prestige than the public schools have traditionally offered.

Other issues involved with collective negotiations and salary administration are the "just cause" clauses within the dismissal portion of the negotiated agreement.[2] What does the management do with employees who are protected by the just cause clause from dismissal but are not performing at a level that warrants the automatic step salary schedule increase? Although not solely a problem for the school business administrator, it affects the administration and equity of the salary program.

Finally, there is the issue of "comparable worth" which has recently emerged as a major social issue. While school districts have traditionally paid staff (at least for the professional teaching portion of the contract) on a single step salary schedule, the areas of extra-curricular activities are now under close scrutiny with respect to comparable pay. This affects all aspects of the salary administration program, as well as the overall objectives of the district. Aware of these conditions, the school business administrator provides information about the worth of each job based on a market analysis of local and regional competition.

Effective salary administration calls for limiting the use of quantitative decision-making tools and considering external forces affecting the school district and its employees. Proper and cost effective determination and administration of a salary program should be based on a series of checkpoints against which the district, and the school business administrator, can evaluate the program.

Market-indexed Compensation Program. Blending two schemes for a market-indexed compensation program which includes the use of quantitative decision-making tools and procedures, the following steps might be used to determine the district's salary program.[73]

1. Management personnel both at the building and district level prepare complete and detailed descriptions of each position within the district. These descriptions include clearly delineated tasks, responsibilities, preparation needs and expectations of the position within the overall accomplishment of the district's educational goals and objectives.

2. Management personnel then rank each of the positions in a hierarchical fashion based on the importance of the position in accomplishing the goals of the district. This may well mean that certain teaching positions are ranked higher than other positions due to the overall influence of this position on the total education of the student and the accomplishment of the district's objectives. These ranking are reviewed by all management personnel and ranked on a continuous basis until consensus is reached as to the relative rank of each position within the district.

3. Following the ranking of each position, weights, or factor values, are given to each position. This gives to each position a weight that is relative to each other position within the district and is used in combination with the position rank to provide for total position value for compensation purposes. One formula that is used for determining market, or competitive, value is:

$$FV = PV\,(I + 1)^n$$

where:

FV = final value or position value
PV = salary of the entry level
I = net salary increase per year
n = number of years to expected to reach the positions full responsibility and effectiveness within the district.[74]

4. The position value is then converted to either salary grades (not unlike a step salary schedule) or to salary ranges for each position. In either event, the position value is keyed to the market index for salary for similarly prepared and experienced personnel, both within the public education sphere and the private sector.

5. To convert the system to a salary range, which appears to be most typical in using this configuration, the final position value becomes the mid-point of the range from an entry level salary for the position, through semi-interquartile ranges (25th and 75th) and the premium level to be paid an individual for that position. The determination of the range of salaries for each position is based on educational preparation and experience (either needed or available) on the part of individuals to successfully fulfill the position's requirements.

The essence of this salary determination system is linked to the goals and objectives of the district and provides an appropriate compensation for individuals based on the value of the position in the district and their performance. The use of this program also permits more effective hiring practices by allowing management to offer candidates a range of salary based on their potential worth to the district, rather than a salary based on the traditional step salary structure. Further, this program permits annual review of the value and place of each position in the organization and keeps each position competitive with other districts and sectors in the economy.

The salary determination procedure described above is a radical departure from the traditional step salary schedule. Yet, given the economic environment, the demands for quality in education and accountability of educational personnel to meet these standards, and the need to attract and maintain better qualified and difficult to retain personnel in such areas as math, science and special education, such a procedure may well be considered by the management of school districts.

The Step Salary Schedule. More familiar to school management than the previously described salary program is the step salary schedule. It is based on years of experience and level of preparation. This form of salary determination does not need a detailed review. The step salary schedule system is greatly enhanced by microcomputers which can be used not only to determine the salary schedule, but also the total costs of the salary/fringe benefits package for the district. The use of various spreadsheet programs can simplify and speed the operation of both design and development of the salary schedule, and the determination of the total cost of the salary/fringe benefits package.

What follows is an example of such a spreadsheet program. Table 12:1 presents a standard salary schedule based on salary determination for the reward of various years of experience and levels of preparation. Note that between step 2 and step 3, and between levels 3 and 4, there is a monetary increase of $500. This is tied to the granting of tenure within the sample and would be altered to meet individual district and state requirements for granting and rewarding tenure.

TABLE 12:1 Salary Based on the 1984 Median Salary for the State of Kansas

	B.A.	B.A. + 15	B.A. + 30	M.A.	M.A. + 15	M.A. + 30	Ed.S.
STEP							
1	14910	15210	15510	16010	16310	16610	17110
2	15210	15510	15810	16310	16610	16910	17410
3	15710	16010	16310	16810	17110	17410	17910
4	16010	16310	16610	17110	17410	17710	18210
5	16310	16610	16910	17410	17710	18010	18510
6	16610	16910	17210	17710	18010	18310	18810
7	16910	17210	17510	18010	18310	18610	19110
8	17210	17510	17810	18310	18610	18910	19410
9	17510	17810	18110	18610	18910	19210	19710
10	17810	18110	18410	18910	19210	19510	20010
11	18110	18410	18710	19210	19510	19810	20310
12	18410	18710	19010	19510	19810	20110	20610
13	18710	19010	19310	19810	20110	20410	20910
14	19010	19310	19610	20110	20410	20710	21210
15	19310	19610	19910	20410	20710	21010	21510
16	19610	19910	20210	20710	21010	21310	21810
17	19910	20210	20510	21010	21310	21610	22110
18	20210	20510	20810	21310	21610	21910	22410
19	20510	20810	21110	21610	21910	22210	22710
20	20810	21110	21410	21910	22210	22510	23010
TOTAL	317480	364800	370800	380800	386800	392800	402800
GRAND TOTAL							2616280

The second portion of the program permits the school business administrator to enter the number of personnel at each level of preparation and years of experience. As shown in Table 12:2, this becomes the distribution chart of the personnel within the district and is changed each year.

Table 12:2 Personnel Distribution for a Typical School District

	B.A.	B.A. + 15	B.A. + 30	M.A.	M.A. + 15	M.A. + 30	Ed S
STEP							
1	5						
2	5						
3	3	1		1			
4	3	4		1			
5	1	4	1	1			
6	1	2		2			
7		3	2	2			
8		4		3	1		
9		1	3				
10		3	1	2	1		
11		2					
12		3	1	3	1		1
13		1		4			
14			1	1	1		
15		2	1	3	1	1	1
16				2			1
17		1	1				
18		2	1	1	2	2	
19		1					
20	2	2	3	3	2	3	2
TOTAL	20	36	15	29	9	6	5
GRAND TOTAL							120

Table 12:3 is a combination of the first two tables—salary schedule and personnel distribution. Totals are provided for each step and level and a grand total is given for the entire cost of the salary schedule based on the distribution of personnel. Finally, the program permits a rough approximation of the costs of fringe benefits based on the United States Chamber of Commerce's report dealing with employee benefit costs and total compilation of costs for a district for that schedule based on the personnel actually in the district.[75]

TABLE 12:3 Total Salary Costs For The Previous Salary Schedule Based On The Personnel Distribution Listed Above

	B.A.	B.A. + 15	B.A. + 30	M.A.	M.A. + 15	M.A. + 30	Ed.S.
STEP							
1	74550	0	0	0	0	0	0
2	76050	0	0	0	0	0	0
3	47130	16010	0	16810	0	0	0
4	48030	65240	0	17110	0	0	0
5	16310	66440	16910	17410	0	0	0
6	16610	33820	0	35420	0	0	0
7	0	51630	35020	36020	0	0	0
8	0	70040	0	54930	18610	0	0
9	0	17810	54330	0	0	0	0
10	0	54330	18410	37820	19210	0	0
11	0	36820	0	0	0	0	0
12	0	56130	19010	58530	19810	0	20610
13	0	19010	0	79240	0	0	0
14	0	0	19610	20110	20410	0	0
15	0	39220	19910	61230	20710	21010	21510
16	0	0	0	41420	0	0	21810
17	0	20210	20510	0	0	0	0
18	0	41020	20810	21310	43220	43820	0
19	0	20810	0	0	0	0	0
20	41620	42220	64230	65730	44420	67530	46020
TOTAL	320300	650760	288750	563090	186390	132360	109950
GRAND TOTAL							2251600
Approximate Fringe Benefit Costs Using 37.3% Of Total Salary Costs. (37.3% Represents The National Average Of Benefits To Total Payroll.)							839847
TOTAL SALARY PACKAGE COSTS, INCLUDING FRINGE BENEFITS							3091447

The chief advantage of microcomputers is the speed with which they can complete tedious tasks of calculation. While they cannot make value judgments as to which salary schedule to activate within the district, they do provide almost instantaneous information to aid the decision-making process.

Regardless of which of the two systems is used, the school business administrator plays an integral part in the salary determination process. While academic management is concerned with the job descriptions, the matching of personnel to position and the communication of these decisions to the workforce, the school business administrator is concerned with the preparation of information and design of an equitable and competitive salary system that reflects the demands of the district. To accomplish this the school business administrator gathers information regarding the compensation paid employees in competitive and comparable school districts and in the local and regional private sectors. Such information will include: base salaries, salary ranges, benefits, bonuses, merit pay/alternative pay options and the matching of position descriptions to assure compatibility of compensation programs.

The key to effective salary administration is the matching of the needs of the employees to the needs of the district. The needs of both of these groups are changing and will continue to change on a yearly basis. Therefore, careful attention to the development and administration of a sound salary program is essential.

Fringe Benefits

While costs due to salary increases continue to rise at roughly the rate of inflation, a second area of compensation, fringe benefits, is rising at a phenomenal rate. Costs and percent of payroll have risen as follows:

Year	Total Benefit Costs per worker (nationally)	% of Payroll
1959	$ 644	18.7
1979	$5560	36.6
1980	$6084	37.1
1981	$6627	37.3
1982	$7187	37.0[6]

As shown, both the total dollar costs have risen and the percent of the payroll has increased dramatically in the past twenty-three years. Although it is expected that the percent of payroll will level off, the dollar benefit costs will continue to rise. This is linked to the security needs of the workforce. Specific costs for fringe benefits may be lower in the area of public schools than in the overall economy as the overall range of costs is between 18 and 65 percent.

The dramatic rise in the cost and provision of fringe benefits is due to many factors. These include the need to reduce the taxable income and provide greater security for the workforce. The work of Paine and Seltz, indicates that from 1970 to 1980 there has been an increase from $5,228 to $10,398 in fringe benefits while the net pay in real dollars has only increased from $5,228 to $5,677 between the years 1970 and 1980 respectively.[7] Moreover, the purchasing power has decreased from $1.00 in 1970 to $ 0.546 in 1980 and the overall taxable income of workers rose from $6,211 in 1970 to $12,874 in 1980. The dramatic increase of taxable income coupled with a decrease in buying power make fringe benefits extremely attractive.

The need to recoup lost income due to tax increases and inflation has led to the belief among many that fringe benefits can no longer be considered "extra." Rather, they are now viewed as a necessary ingredient of a compensation package, something almost akin to a right. Integral to most of fringe benefit packages provided as a kind of protection against the vagaries of life are the following insurances: life, health, unemployment, disability and much more.

Another reason for the rise of fringe benefits is the increased demand by employee organizations during the bargaining process as they attempt to protect employee benefits and security while achieving a more workable balance among the salary/benefit/taxable income mix. The overall effect of these points in negotiations is to increase the benefits paid all employees of the district.

Still another influence on the size and nature of fringe benefits is the extent to which management decides to provide a real-wage increase each year. The school business administrator, saddled with a budget which reflects rising total costs and the possibility of decreased revenues, must examine the variety and cost of fringe benefits and determine the mixture that is needed to meet the demands of the associations and still fulfill management's objectives.

What can the school business administrator do to plan for appropriate inclusion of fringe benefits within the total compensation package and at the same time contain the costs of these benefits? Recognizing that benefits, as part of the compensation package, are important for the attraction, motivation and retention of good employees, the right mix of base pay, incentives, benefits and other intangible rewards must be planned, designed and implemented. Objectives must be established that permit maintenance of a competitive position, adequacy of benefits to assure basic needs and provide flexibility within the benefit plan structure. The benefits must also be linked to projected rising costs and the funding available for meeting the costs with plans for providing benefits under different cost containment procedures. Through surveys, the school business administrator can determine when employees plan to retire, the proper benefits to taxation mixture employees desire, as well as the types, status, age and needs of the employees. The latter—types (male/female), status (single, married, divorced), age and needs of employees—is critical to developing a successful mixture of a benefits/salary package. This information should be updated yearly. How best to provide these benefits is discussed in the chapter on risk management.

New Benefits. Several benefits are becoming increasingly popular during collective negotiations. The first is the use of flextime within the educational program of the district. Although not a benefit in the traditional sense, part-time employment may be considered a benefit by those individuals who seek to be actively working, but have other responsibilities and interests which make full-time work difficult or unattractive. A flextime plan can work to benefit both the educational program and the employee, since with part-time employees, salary and benefits (if any) are prorated or eliminated, thus providing a savings to the district.

Outplacement, and its corollary, retraining, are also becoming important benefit-type concepts. With the increasing decline in enrollments and the need for districts to contain and reduce costs, it is realistic that reduction-in-force, or layoffs, will occur. Retraining and outplacement assistance gives the employee a certain degree of security, at the same time that they demonstrate an active concern for the employee by the district and underscores the importance of the individuals to the organization. Although a cost to the organization, the morale benefits and good will that are created work to strengthen the organization. What is more, the retraining of personnel who might otherwise be laid off can actually reduce costs to the district, if the employee finds satisfactory employment outside the district.

Changes in family lifestyles and the ever-growing phenomenon of two-income families give rise to two additional benefits—paternity leave and day care. In the 1960s and '70s, the granting of maternity leave became a regular business practice. With the granting of this benefit, however, came certain problems including the loss of income and potentially negative impact on the careers of women.[78] Paternity leave can help to mitigate such problems. The cost of offering some form of child care/day care options can be part of the cafeteria benefits program and, thereby, reduce the internal equity question. Such services may range from providing a listing of these services to the actual provision of child care in empty classrooms in the school district. The benefits to the district include reduced absenteeism, a more stable workforce, less turnover, increased morale and the use of such a benefit as a recruitment tool. Moreover, the child care/day care program generally will increase the quality of education in the district by promoting early learning and preparing children for the learning process.

The area of fringe benefits is not only important from the standpoint of employee morale but from the standpoint of cost containment/reduction as well. Fringe benefit costs are rising and will continue to rise at a rate faster than wage increases. This causes the school business administrator to examine all options and plan carefully for the proper balance among the wage/benefit mix so as to meet both the needs of the employees and the objectives of the district.

Resolving Negotiation Impasses

When the negotiations process meets an impasse, how can both the associations and management have a modicum of control while attempting good faith negotiations and protecting the "rights" of both parties? The two extremes resulting in no resolution are strikes by the teachers as was the case in Pennsylvania at the beginning of school year 1985-86, to seemingly total disregard by the school boards/management team for the employees, as in Kansas the same year. To break an impasse a balance must be struck in which the rights and needs of both parties in the negotiations process are taken seriously.

If, as discussed earlier, commonly used means for resolving impasses in the private sector, arbitration, becomes the general trend in the public sector, then conflict resolution in the negotiations process between teachers associations and school districts will be reduced to a manageable level.

A contributing cause to impasses is the uncertainty of costs and benefits that can be accrued from continued negotiations. There are benefits and costs in compulsory arbitration regardless of the specific techniques employed."[illegible] Benefits range from the protection of the public interest through the prevention of work stoppages or strikes, to the protection of employees' interests by permitting bargaining from equal strength to the use of a third party to resolve the dispute in a manner suitable to both parties. Costs range from the restriction placed on a third party who is not responsible, through the uncertainty of costs and benefits of continued negotiations, to the "chilling" effect of arbitration on the negotiations process by virtue of the uncertainty of the outcome and the restriction to make concessions. The latter usually arises in the use of conventional interest arbitration, where the arbitrator splits the difference between the two parties. It is often suggested that there are additional means to avoid the "chilling" effect and the apparent loss of control by the policy-making body. Some have suggested that the use of final-offer arbitration (either issue by issue or total package) reduces the uncertainty about the costs and benefits as well as encourages reasonable offers and willingness to resolve disputes.

With these concerns in mind, what is the role of compulsory arbitration within education? Legally there are provisions and guidelines for the arbitrator to use concerning: the authority of the public sector body, the issues at hand, the interest and welfare of the public at large, the comparison of hours, wages and terms and conditions of employment of the organization with those in other segments of the economy, overall compensation, changes in the organization depending on the outcomes of arbitration, and any other factors which might be considered in the "normal" resolution of impasse dealing with the issues of hours, wages and terms and conditions of employment.[80] It appears that the final impasse resolution procedures available for participants within the private sector—advisory arbitration (fact finding), conventional (split the difference) arbitration, final offer (issue-by-issue) or final offer (total package)—are viewed as effective ways to move both parties to want reasonable positions prior to the institution of arbitration, without damaging the overall bargaining process.

For example, the use of final-offer, total-package arbitration can be implemented successfully within the sphere of public education for the resolution of impasse disputes. It is the opinion of some that the process used in final-offer arbitration encourages both sides in the impasse dispute to make more concessions than they would otherwise, thereby bringing parties closer prior to arbitration, while increasing the level of commitment to the bargaining process following negotiations and the impasse resolution process. With final-offer arbitration both sides are generally more satisfied with the process than they would be with more conventional methods that provide for splitting the award between the stances taken by either side.[81]

Careful consideration should be given to the role of the school business administrator as implementor of the process for negotiations. He or she must be careful to avoid taking a narrow view of the potential outcomes and seek to develop realistic positions for management in light of existing and predicted conditions for the demands of the employees and the financial status of the district. By using quantitative data, the school business administrator is more likely to achieve a realistic view of the situation, a view of the larger picture and the ability of the management personnel to meet the financial and academic objectives of the district while meeting the needs of the employees.

Studies in which negotiators were trained in final-offer (total package) arbitration techniques and provided information and training in developing a more realistic perspective of the negotiations and arbitration situation, yielded more concessions on the part of the negotiators prior to arbitration, a posture of bargaining that resembled problem-solving rather than the traditional adversarial relationship and a sense of ownership of the final-outcome.[82] The latter is particularly relevant, since the conventional arbitration process does not result in a feeling of "ownership." Knowing that the arbitrator will split the difference when reaching a settlement, negotiators on both sides tend to maintain the initial and distant positions. Although not always the best method for resolving impasses, final-offer arbitration does reduce conflict and produces lower costs and greater benefits in the long run.

In preparing for arbitration, particularly final-offer arbitration, the school business administrator must be concerned with at least four matters. The first area of concern is the final status of the unresolved issues. The school business administrator must determine the exact points of disagreement and the final offers that both sides have produced on these issues. A clear delineation of these points is essential for accurate and effective arbitration. This includes adopting a realistic perspective toward the issues and not fixating on the optimal, least-cost solutions that would be beyond the realm of possibility for the arbitrator to select.

Second, the school business administrator is concerned with the history of concessions made by both parties, the support and clearly demonstrated need for the item and the degree of strength proposed by the parties. How important is the item and how important is the level at which the demand for the item is set? Consideration must be given to the level of support of the taxpaying public and practices of local and regional competition when formulating a position with respect to an item under dispute.

Third, the school business administrator is concerned with the evidence that will be used to establish the realistic nature of the management team's position. This is the singularly most important function of the school business administrator in the arbitration process. In carrying out this function, the school business administrator is responsible for insuring that the districts used in preparing "comparable data" are in fact comparable. This can be accomplished by examining size, location (rural, urban, suburban), state aid ratio, amount received in federal funds, the tax burden and effort, the number of staff, pupil/teacher ratios, the populations income levels (both mean income levels and per capita income levels), buying power of the general public, projected revenues and expenses (again a realistic projection) and similar types of information. To obtain a realistic cross section, ten to twenty districts from the immediate geographic region should be identified initially and compared. Then a similar cross section from across the state should be selected and compared to those deemed really comparable from the local region.

Fourth, once the comparable districts have been located, the school business administrator needs to compile and produce information on the current status and proposed offering of each of the unresolved items. For instance, if salary were in dispute, a table of starting and ending salaries by level would be appropriate for each of the comparable districts including the difference (either plus or minus) between the comparable district and the district the school business administrator serves. Such tables of information should be prepared for each of the unresolved issues including "non-cost" items as well. These tables should also include information about the local and regional private sector as a means to bolster the position of the district by demonstrating comparability of rewards/compensation and the value of the positions under dispute.

The tables of comparison serve two purposes. First, they provide the management team with information regarding the district's standing comparable to similar districts. This enables management to adopt a realistic posture on the unresolved issue. This is particularly important if the district is out of alignment with comparable districts, thereby facilitating a change in the final offer prior to arbitration, if such a change in position were warranted. Second, assuming that the position of the district were realistic, the clarity of these tables will assist the arbitrator to ascertain management's position in rendering the final decision. By demonstrating the relative and realistic position of the district to comparable districts, management's final position on the issues is strengthened.

Finally, the school business administrator must take note of the tactics used and responses to challenges made during the actual arbitration hearing.

Although the control of the hearing process is in the hands of the arbitrator and the spokesperson for the team, the school business administrator should expect figures and points of comparison to be challenged by the other side. In addition, a spirit of mutual cooperation and civility must be maintained. Providing that the tables and other evidence are well prepared, let the evidence speak for itself. When appropriate also, the school business administrator should challenge any perceived inaccuracies in the opposing side's presentation and ask for clarification of positions and evidence presented to insure that the management team understands fully the implications of what is being presented. The focus of attention of the team members should be on the arbitrator, who will render the final decision. It should be noted that challenges by either side should not be taken personally. Many arbitration hearings have been "lost" when the challenges have been taken as personal affronts and the expected reaction has been elicited.

Although arbitration may not be the best means to resolve disputes and solve problems between the management and the employees of the district, it does provide for solutions without resorting to more drastic measures. Also, the use of final-offer arbitration does permit more realistic concessions and bargaining positions between the affected parties. This spirit of mutual cooperation and collegiality can work to foster better relations between management and employees, while maintaining the balance of power and responsibilities between the two parties.

Summary

This chapter has dealt with, in large part, the role of the school business administrator within the collective negotiations process. While remaining a provider of information, the role of this administrator has expanded to include that of designer, coordinator, consultant and change agent in both the management of the district and in the collective negotiations process. In considering the various aspects of the negotiations process, from compensation management through salary administration, the mixture of fringe benefits to salary and the place of final arbitration within impasse resolution, the role of the school business administrator calls for creativity and flexibility aimed at assisting the management team in meeting its goals and objectives, facilitating an understanding of the issues and incorporating the needs of the employees into the negotiations process.

NOTES

1. S. Linnick, *Public Sector Labor Relations: An Overview and Constitutional Considerations in Public Sector Labor Relations* (Practicing Law Inst. Litigation Course Handbook Series, No. 201, 1982), 17.

2. Ibid., 18.

3. Freeman, "The Negotiating Impasse in Labor Relations for Teachers," *5 Vermont Law Review 39 (1980), 42.*

4. *B. Werne, The Law and Practice of Public Labor Relations*, (1974), 225-228.

5. Henkel and Wood, "Legislative Power to Veto Collective Bargaining Agreements by Faculty Unions: An Overlooked Reality?," 11 *Journal of Law & Education* 79 (1982), 85.

6. In AZ, NC, TX, UT, and VA it is illegal for a public employer to bargain collectively. In Texas the Board of Trustees of each school district may consult with teachers on their conditions of employment ("meet and confer"). In GA, KT, LA, MS, OH, SC, and WY no statute or case law imposes a duty to bargain or to meet and confer.

7. Linnick, 9.

8. As of 1984, the duty to meet and confer existed in AL, MO, NE, NM, OK, RI, SD, VT, and WV. In Texas, where collective negotiation by governmental bodies is illegal, the local school district board of trustees has the option to meet and confer with its employees.

9. Linnick, 9.

10. 1 *Public Employee Bargaining Reporter*, (CCH) 2500.

11. CA (collective negotiations in elementary and secondary education; meet and confer in higher education), HI, IN, ME, MN, NV, and PA (collective bargaining when dealing with all public employees except first-level supervisors; must meet and confer with first-level supervisors).

12. CCH 1500.

13. Werne, 400.

14. These include at least AK, CA, CT, HI, IL, KS, ME, MD, MA, MI, MT, NV, NJ, NY, ND, OK, PA, RI, SD, TN, VT, and WA.

15. CT, HI, MD, NV, NJ, ND, OK, PA, RI.

16. Werne, 400.

17. See *Adelphi Univ.*, 195 NLRB 639, 79 LRRM 1545 (1972) at 1555-56, where the Board stated that collegiality "does not square with the traditional authority structures with which this Act (NLRA) was designed to cope . . . (A) genuine system of collegiality would tend to confound us."

18. *Northeastern Univ.*, 218 NLRB 247, (1975) at 248.

19. S.G. Kramer, *Collective Bargaining & Collegiality in Labor Relations and Equal Opportunity in Higher Education*, (Practicing Law Inst. Litigation Course Handbook Series No. 111, 1977) 197. This was the position taken by the Division of Advice of the NLRB in Endicott College, 4 AMR 10, 219 (March 18, 1977).

20. H.T. Edwards, "The Emerging Duty to Bargain in the Public Sector", 71 *Michigan Law Review* 885, 909 (1973).

21. CA, DE, IN, IA, KS, ME, MD, MA, MI, MN, MT, NV, NH, NJ, NY, ND, OH, PA, RI, SD, WA, and WI.

22. CA, CT, DE, FL, HI, IA, KS, MI, MN, MT, NV, NJ, NY, OH, OR, PA, TN, VT, WA, and WI.

23. These include IN, ME, MA, MN, NV, and OR.

24. Werne, 247.

25. Oklahoma

26. In North Dakota honesty, temperance, civics and the work ethic.

27. Werne, 173.

28. 5 CER 2470.2 (Supp. 1973).

29. States with statutory procedures as of 1984 include AK, CA, CT, DE, DC, FL, HI, ID, IL, IN, IA, KS, ME, MD, MA, MI, MT, NE, NV, NH, NJ, ND, NY, OH, OK, OR, PA, RI, SD, TN, VT, WA, and WI.

30. All except MD, NE, OK, SD, and WI.

31. This is so in AK, DC, IL, NV, PA, RI, TN, and VT.

32. Werne, 173.

33. CA, CT, DE, FL, HI, ID, IL, IN, IA, KS, ME, MA, MT, NV, NH, NJ, NY, ND, OH, OR, PA, TN, VT, WA.

34. CA, DE, HI, IN, IA, KS, ME, MT, NH, NY, ND, OH, OR, TN, WA.

35. Except in Nevada.

36. Werne, 175.

37. Ibid., 181.

38. States doing so include AK, CT, DC, HI, IL, IN, IA, ME, MA, MN, MT, NJ, NY, OH, OR, PA, RI, and WA.

39. AK, NY, PA, and SD.

40. HI, IL, IN, ME, MS, NJ, OH, and SD.

41. See Freeman, 43-45.

42. Werne, 306.

43. Binding arbitration is not sanctioned in the statutes of DE, FL, LA, MO, ND, SC, VA, and WV.

44. CA, CT, DC, FL, HI, IN, IA, KS, LA, ME, MD, MS, MI, MO, MT, NM, NY, ND, OR, RI, SC, VT, WV, and WI.

45. AK, DE, IL, MN, NJ, OH, PA, and TN.

46. Werne, 379.

47. Ibid., 384.

48. Ibid., 374.

49. See note 43.

50. *Public Employees Rel. Comm. v. Dist. Sch. Bd.*, 374 So.2d 1005 (Fla. 2d DCA 1979).

51. *Dunellen Bd. of Educ. v. Dunellen Educ. Ass'n.*, 64 NJ 17, 311 A. 2d 737 (1973).

52. *Brady v. Bd. of Trustees*, 242 N.W. 2d 616 (Neb. 1976).

53. *Antinore v. New York*, 371 N.Y.S. 2d 213 (App. Div. 4th Dept. 1975), aff'd mem. 358 N.E. 2d 268 (N.Y. 1976). It should be noted that this case involved a civil service employee.

54. Smit, Frank, and Rosemier, "The Impact of Mandatory Collective Bargaining Laws on a School Board's Ability to Govern," 4 *Gov't Union Rev.* (Spring 1983).

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57. Waren, 413.

58. *Abood v. Detroit Bd. of Educ.*, 431 U.S. 209 (1977).

59. Jascourt, "Looming Legal Issues in Labor Relations in Education", 12 *J. of Law and Educ.* 443 (July, 1983).

60. *Robinson v. State of New Jersey*, 112 LRRM 2308 (D.N.J. 1982).

61. Jascourt, 446.

62. Lieberman, "Educational Reform and Teacher Bargaining," 4 *Gov't Union Rev.* 59-62 (Summer 1983).

63. *Talbot v. Concord Union Sch. Dist.*, 323 A. 2d 912 (New Hampshire, 1984).

64. Linnick, 10.

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68. Ibid., 23.

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13

Risk Management

L. Nathan Randal

Risk management has been an accepted part of corporate management for some years, especially in larger corporations. Even many small businesses have recently charged an administrator with the responsibility for managing the risks of doing business. In reality, this has often been little more than periodically shopping for insurance. However, it is not unusual to find fairly sophisticated insurance purchasers in relatively small companies.

Fundamentals of Risk Management

The goal of risk management is to minimize the risks of doing business and to do so at an acceptable cost. While a business which faces prohibitive costs of risk can decide to discontinue operations, schools usually cannot take such definitive action. Rather, they must continue to operate and manage risk and its attendant costs as best they can. In such situations, the risk management function can be vital to the financial well-being of the district. In a corporate situation, managers are responsible to the stockholders for the responsible management of company assets. Managers of school assets are responsible not only for management of those assets, but for how effectively those assets are used in the education process. This chapter will discuss risk management from the perspective of school business administration.

Before risk management responsibilities are discussed certain fundamental aspects of risk management must be addressed. The fundamentals of risk management may be broken down into four basic elements:

- Identification and measurement.
- Risk reduction or elimination.
- Transfer of risks incapable of assumption.
- Assumption of remaining risks.

Identification and Measurement

It is impossible to manage risks if they are not known. Thus, one of the most important jobs of the risk manager is to establish an information gathering system to keep him or her advised of the operations of the district. This process should not be limited to the physical risks of district operations, but should extend to such areas as curriculum development, parent clubs, community use of facilities, break time activities of the staff, classroom activities and field trips to name a few.

The successful risk manager will establish him or herself as an advisor to whom other administrators can come for help in evaluating risks. Participation on curriculum development committees will enable the risk manager to have input during the planning stages of new programs. Various aids may prove useful to the risk manager such as flow charts, checklists, inventory forms and questionnaires. It is important that such aids form part of an overall information gathering system and not merely be completed as a matter of form.

Risk Measurement

Three dimensions of risk deserve careful consideration: probability, frequency and severity. While each needs to be considered individually, it is the relationship between them which is critical.

Probability/Frequency. A detailed discussion of hypothetical probability distribution is beyond the scope of this chapter. However, a general understanding of this subject is essential to the aspiring risk manager. Probability is the likelihood that an event will occur. It may be helpful to divide probability into categories indicating the potential for occurrence, such as none, low, moderate, high, definite.

Severity. The severity of loss is the more important consideration. Management of the catastrophic loss is the single most important function of the risk manager.

Risk Reduction or Elimination. Only in rare instances will the risk manager be able to eliminate risks completely. Generally, his or her contribution will be to educate other decision makers about the hazards of doing business and to direct his or her expertise toward the reduction of risk.

For example, one major area of concern is the handling of all moneys within the district. The necessary checks and balances must be adequate to meet all legal and insurance requirements. This includes the proper accounting for grants and bequests. Effective controls over financial matters will minimize the costs of purchasing necessary fidelity coverages.

Transfer of Risk

Risk transfer can be divided into two basic areas. The first is the non-insurance transfer. Often a risk can be transferred to another party through contract or other agreement. An example of this would be to require contractors to contractually accept liability for all operations.

Another example would be the *hold harmless* clause or agreement. The signer of the agreement agrees to hold the other party harmless for certain acts or conditions. Such agreements are often contained in standard contracts or sales agreements. Legal precedents are not clearly established with the use of such agreements.

The remaining area of risk transfer, and by far the best known, is the insurance transfer. In theory, the purchase of insurance should be the last step to be taken. However, when the costs of insurance are not prohibitive, the purchase of insurance is often the only step. As the cost of insurance rises and/or the market becomes restricted, insurance purchasers become more creative and resourceful.

Assumption of Risks Incapable of Transfer (Retention)

The decision to retain a risk will depend on many factors. The contingent factors will vary as market conditions change. Basically, risks should be retained when the frequency is high and the severity is low. In such cases, the purchase of insurance is basically "trading dollars." For example, if the district has a high frequency of glass breakage, it may be more effective to have glass replacement handled by maintenance personnel than to purchase insurance against such breakage. The acceptance of deductibles is another form of risk retention. The calculated use of deductibles based upon an analysis of frequency and severity can reduce the combined cost of insurance and retention.

The district will occasionally be forced to retain risks when no market exists for the placement of insurance or the cost is prohibitive.

Legal Matters

Many areas of risk management involve legal research and analysis as well as other legal-type skills such as letting bids, conducting negotiations, drawing up contracts and the like. Applicable law may be state or federal. As a result, the risk manager will need frequent access to competent legal counsel. If such counsel is not currently available, it will be imperative for the risk manager to negotiate some arrangement to provide access to legal opinions. The proper use of legal counsel will avoid many problems. Too often, attorneys are called upon to defend actions which would not have been taken had they been consulted earlier.

Applicable State Code Sections

Prior to the decision to purchase insurance or retain risk, the district risk manager should thoroughly research the various code sections pertaining to the requirements to insure certain exposures. These requirements will vary greatly from state to state. Some states will allow the district to elect certain options in insurance and self-insurance (see section on self-insurance). When code requirements for insurance exist, one should be certain that the code section numbers are listed in the insurance policy or endorsements.

Bidding Versus Negotiations for Insurance Requirements

In some states requirements to bid insurance can limit the options available to the risk manager. Many districts assume that such a requirement exists even though the bidding requirements for their state may apply only to the purchase of materials and supplies. The state requirements should be reviewed with district legal counsel. Where the district can decide for itself how to purchase insurance, superior results may often be obtained by using alternatives to bidding.

Putting the district's insurance requirements out to bid every year does not provide any continuity between the district and its insurance carriers. While this may not seem important in a soft insurance market, such continuity can provide a vital edge when market conditions tighten.

An alternate method, with many variations, involves the selection of an insurance broker, through some type of competitive selection process, based upon specifications of the services desired. The broker is then charged with obtaining competitive quotations from various insurance carriers based upon specifications developed jointly with the district. Since the district needs much more than just the purchase of insurance, the selection of a competent broker is critical to the risk management program of the district. The broker should have staff qualified to advise the district on the state of the insurance market as well as to assist the district in developing the best package of insurance coverages at the best price available.

Contracts

School districts assume liability by contract daily without being fully aware of the exposures accepted. Purchase orders, sales contracts, construction contracts, maintenance agreements, building leases and equipment leases can each contain hidden liabilities. All contracts should be reviewed for insurance considerations as well as budgetary and legal ramifications by the appropriate person. Districts often have an agreement to send copies of all contracts to the broker of record for review, in addition to an in-house review.

Contracts Requiring the Tenant To Supply Insurance. If the district, as tenant, is required to purchase building insurance, the lease must be specific as to:

1. Amount of coverage.
2. Source of valuation and frequency of update.
3. Additional insured requirement.

Hold Harmless (Indemnity) Agreements. Under such an agreement one party assumes some or all of the other party's liability. Such agreements are subject to negotiation and will reflect current practice in a particular area. The party with the weakest negotiating position will often be forced to agree to such an arrangement. The district must be aware of the consequences of agreeing to accept any liability through a hold harmless agreement. Insurance contracts in force may not permit such an agreement. Generally, it is the district which should attempt to require the other party to hold the district harmless. Such a clause should stipulate that the indemnitor will not only pay damage awards, but also will defend or pay the costs of defense. The latter would allow the district to choose its own counsel.

If the district is to be held harmless by another party to a contract, it is important to verify that the other party will be able to pay any award for damages. In addition to requiring the other party to show proof of insurance, the district should also require that the district be named as an additional insured. Sample statements to be reviewed by legal counsel are as follows:

SAMPLE WORDING FOR AN ADDITIONAL INSURED CLAUSE

The __________ district is to be included as an additional insured as respects liability arising out of the use of __________________________. It is further agreed that __________________________ liability policy should be endorsed to be primary insurance as respects the interests of the district and that any other insurance maintained by the district is considered excess and not contributing insurance.

SAMPLE WORDING FOR A HOLD HARMLESS AGREEMENT

Contractor shall take all responsibility for the work, shall bear all losses and damages directly or indirectly resulting to him, to any subcontractor, to the district, or to district employees on account of the performance or character of the work, unforeseen difficulties, accidents, occurrences or other causes. Contractor shall assume the defense cost of and save harmless the district and its officers and employees from all claims, loss, damage, injury and liability of every kind, nature and description directly or indirectly arising from the performance of the work. Approval of the insurance contracts does not relieve the contractor or subcontractors from liability under this hold harmless clause.

Qualifications of a School District Risk Manager

School boards are sometimes reluctant to recognize the importance of risk management until events call the fact to their attention. Such an event can be a revised state code section exposing the district to risks previously unanticipated or the filing of a lawsuit.

The qualifications of successful school district risk managers are almost as varied as the districts in which they practice. Normally, the risk manager will be a member of the business staff with:

1. An overview of the entire risk.
2. Some insurance experience.
3. Budgetary knowledge.
4. Knowledge of existing codes and statutes.
5. Knowledge of legal contracts.
6. Knowledge of building design requirements.

The competent risk manager will have some knowledge in each of these areas. In the larger district, the risk manager will often have previous experience in one or more technical insurance fields.

The person designated as risk manager, if not competent in all areas, should be in a position to enlist the services of other staff members as resources to enable him or her to function at an acceptable level of efficiency.

Most importantly, the risk manager must be aware that risk management is an integral part of the overall management of the district and requires continuing attention and not sporadic consideration.

The basic concept of risk management in the operation of the district should be set forth in writing by the school board and should include:

1. Board policy statement.
2. Procedures to implement board policies.
3. Objectives of the risk manager position.
4. Responsibility and authority of the risk manager to accomplish the job.

Much of the success of the school risk manager will depend on how well he or she can work with the various segments of the insurance community. This success will depend in large part on the ability to evaluate the advice, counsel and marketing techniques of insurance brokers. The ability to distinguish between sound advice and marketing efforts will allow the risk manager to fulfill the insurance requirements of the district.

The competent risk manager must not succumb to either of the extremes in regard to dealing with insurance brokers. On the one extreme is the risk manager who believes everything which he or she is told by the broker. Equally as bad is the complete distrust of any information coming from the insurance industry.

Insurance Basics

Insurance carriers are different from manufacturers of products in that the carrier's obligation to provide their "product" (claims payments) is at some point in the future. In this respect they are more like banks than manufacturers. The government is obligated to provide some level of assurance that insurance carriers will be able to meet their obligations. Modern day life would be nearly impossible without the security which various insurance coverages bring to both personal and business activities.

Government Regulation

The McCurran-Ferguson Act (Public Law 15) was passed in 1945 to reduce the confusion following several court decisions. This act stipulates that regulation of the insurance business shall remain with the states except where Congress has specifically enacted legislation. Examples of federal legislation would include E.R.I.S.A., minimum wage laws, civil rights laws and others. The primary purposes of both federal and state requlation are financial stability of insurance carriers and fair trade practices. The real task is to balance regulations which will promote financial stability and still allow for competition to be the main regulator.

Each state government has an insurance commissioner who is usually appointed by the governor. The insurance commissioner is responsible for enforcing the insurance code within his or her state. Most commissioners belong to the national association of insurance commissioners (N.A.I.C.).

The Insurance Contract

The insurance contract is subject to the same basic contract laws as in any other contract. However, the insurance contract will usually be much longer and more detailed than most other contracts. In addition, many of the terms used in the insurance contract are unique to the insurance industry. Evaluating insurance contracts is often beyond the capabilities of even the seasoned risk manager.

Much of the language in insurance contracts or policies is standardized by policy type. Thus, a standard fire policy will have much the same language regardless of the company. There are, however, important exceptions to this generalization.

Rating Bureaus

Rating bureaus exist for the primary purpose of pooling the experience of many insurers to provide comprehensive rating information. Insurers are not required to participate in rating bureaus. Some insurers participate in one or more bureaus to obtain rating information and then may deviate from those rates for certain classes of business. Operation of bureaus will differ by geographic area as will their requirements for participation. Insurers not participating in any bureau are usually referred to as independent insurers.

In some areas, the term "bureau" has been replaced by the term "insurance service office" (ISO). Indirectly, the ISO exerts some regulatory pressure on its participating members by establishing rates and by classifying risks. Unfavorable classification of a risk by an ISO may force an insurance purchaser to seek an independent insurer. Many independent insurers will use bureau rates as a guideline, especially in areas where they have inadequate rating information of their own.

Admitted Carriers versus Non-Admitted Carriers

Insurance carriers are considered domestic companies in the state in which they are incorporated and foreign companies in any other state. A company licensed to conduct business and sell insurance is referred to in many states as an "admitted carrier." Due to limited staffing of insurance departments or commissions, active regulation is limited to domestic carriers. Thus, purchasing insurance from a foreign or non-admitted carrier may carry additional risk over purchasing coverage from a domestic carrier. In most states, the insurance commissioner will only assist in collecting from admitted carriers. Insurance placed with a foreign or non-admitted carrier will usually be placed through a broker with a surplus lines license. This usually involves at least one additional broker and, therefore another level of commissions.

Insurance Broker and Agent

An insurance broker does not represent insurance companies, that is, he or she is not the agent of any company. The broker may place coverage with any carrier which will accept the business. An agent has a contract to represent one or more companies. An agent may also participate in bonuses for the amount of business placed with a particular company or on that company's good experience. These distinctions do not exist in all states and some states treat brokers and agents exactly the same. Some states issue different licenses to brokers and agents, while others issue only one category of license.

It is important, when dealing with an insurance broker or agent, to understand his or her status. Most school districts will likely deal with brokers due to the unique needs of the school for broad insurance coverages. The term broker will be used throughout this chapter unless otherwise noted.

School district risk managers will often be concerned with the commission arrangements between their brokers and carriers. If questions arise as to whether commissions are excessive or vary greatly between carriers, other arrangements can be made to compensate the broker for his services. Insurance may be billed net of commissions so that the risk manager may see the exact cost of insurance. A commission percentage may be agreed upon for each line of business between the school district and the broker. The broker may also be compensated on a fee for services bases. While this may require some extra record keeping, it may be necessary to monitor actions of commissions to remove doubts as to whether commissions are excessive on some insurance placements.

Responsibilities of the District to Its Insurance Carrier

The following is a list of basic responsibilities of a school district in the insurance transaction.

1. *Prompt reporting of claims and potential claims*. Some policies may contain a provision that the carrier is not liable unless the insured reports the claim within a certain period of their first knowledge of the claim.

2. *Cooperation with the defense of claims*. Various adjusters, attorneys and investigators may need assistance with anything from photos and records to aid in locating witnesses.

3. *Employee education*. District employees must be educated not to make prejudicial remarks or statements to anyone regarding an accident or other

incident. Even a careless statement made immediately after an accident may turn out to be very damaging.

4. *"Good Faith" negotiations.* If a claim could have been settled below the insured's retention or deductible but is eventually settled for much more, the carrier may refuse to pay claiming "bad faith."

5. *On-going contact.* Notify the carrier promptly when additional exposures are created such as adding vehicles, buildings, employees and so on.

Loss Control

Whether sophisticated or simple, the goal of any loss control program is to conserve assets. These assets can be divided into three general categories: 1) people (students, staff and public), 2) property and, 3) cash. To achieve the goal of asset conservation, the following strategies need to be implemented:

1. Loss identification and measurement.
2. Loss avoidance or prevention.
3. Loss reduction.
4. Post-incident claims control.

Loss Identification and Measurement

The basic steps in identification and measurement were discussed in the beginning of this chapter. This section will emphasize the importance of adequate record keeping to effective loss control.

Loss avoidance or prevention. Obviously, the most effective loss control activity is the avoidance or elimination of an activity or circumstance which will produce a loss. It is at this level of loss control that the greatest impact on district finances can be accomplished. If the risk administrator can be involved in the planning stages for all new activities of the agency, many ill advised activities can be avoided. It is much simpler to avoid certain activities than to discontinue them after problems arise. Board policy should require that all new curriculum programs are reviewed by the proper panel of district personnel prior to implementation. Such a review helps to ensure that such new programs conform to established district policy which would include loss control considerations (see Appendices).

Often many decisions regarding new programs, materials, personnel, sites and equipment are made or directly influenced by staff members having no guidelines regarding loss control or loss control activities. Even though not all losses are avoidable, the frequency of losses can be reduced through the proper loss control activities. Information concerning losses which have occurred previously in essential to the prevention of their reoccurrence.

Loss reduction. Two different activities need to be implemented to effectively reduce the severity of loss. First, as much preventive work as possible must be undertaken to minimize the severity of a loss. Second, a great deal of planning needs to be undertaken to provide necessary training, procedures and materials for post-incident claims control.

Post-incident claims control. Post-incident claims control involves those activities which occur in the critical period immediately following the discovery of a loss. For example, the point at which a fire is out is the starting point for post-incident claims control. These activities include: recovery of salvageable materials, security to prevent further loss and locating inventory lists.

Loss Control Programs

The implementation of a loss control program must begin at the top. Without the support of the board and superintendent, a loss control program is a literary exercise. The board of education should adopt a rather simple policy statement expressing its commitment toward the controlling of losses and instruct the superintendent and staff to develop the necessary regulations to implement such policy. This stated commitment by the board will make it known to the staff and the community that loss control will be a district way of life and not a paper project (see Appendices).

The assignment of staff responsibility for risk management and loss control is of great importance. If this assignment is made too far down the organizational ladder, the program will suffer. The loss control administrator will need to become familiar with the following:

1. Appropriate staff and local codes.
2. Insurance principles.
3. Claims adjusting procedures.
4. Building codes.
5. Management techniques.
6. Finance and accounting.

The development of loss control programs for the district is not as difficult as is the communication of these programs to the staff. Many sources of model programs exist for the novice loss control administrator. These include professional organizations, large corporations, nearby districts and any number of publications.

The communication of these programs and their importance to the district are the most difficult steps. It should be obvious that one administrator or even the entire business office staff cannot implement these programs without the cooperation of the entire district staff. This communication, like many others, should not be one way. No loss control administrator could ever find the time or expertise to develop and implement effective and efficient loss control programs alone.

Some of the areas which have proven to be worthy of early attention would include:

1. Pre-employment physical exams.
2. Job-related safety training programs.
3. Safety communications system.
4. Accident investigation program.
5. Safety committees.
6. Safety inspections.
7. Safety materials, equipment and training.
8. Record keeping system.
9. Safety performance as part of employee performance evaluation.
10. Adequate inventory procedures.
11. Participation with other agencies, companies or coalitions to share ideas and resources.

Pre-employment physical examinations. The establishment of an effective pre-employment physical program can be very difficult due to the maze of federal, state and, occasionally, local regulations. In particular, federal antidiscrimination laws can be very intimidating. However, effective programs are now in place in both the public and private sectors. One critical point to remember is that such a program must be based upon the actual physical requirements of each job. If a particular physical condition has no bearing on the performance of the position in question, any consideration of that condition will certainly be considered discriminatory. A determination of whether an applicant can physically perform a particular job can only be made by a qualified health professional. Most importantly, the health professional cannot make a professional determination without having a recent, detailed job description of the subject's position. The pre-employment physical examination is only one part of the employment process which is of vital interest to the loss control administrator. Some other areas which are crucial to the district are:

1. Permissable questions on job applications.
2. Statement attesting to truthfulness of statements on the application, signature and consequences for falsification.
3. Use of medical information to dismiss or not hire.
4. Confidentiality of medical information.

The value of a loss control program or activity lies in the losses prevented or in the cost containment of losses which have already occurred. A comprehensive, cost effective loss control program is one of the most difficult aspects of risk management. Outside consultants rarely have time and information to understand the many facets of school district operation. Staff members are usually so involved with day-to-day activities and "putting out fires" that they have difficulty in seeing the overall patterns.

Possibly the single most important objective of any loss control program is the development of a structure which will allow a district to evaluate its own loss control activities and make adjustments based upon such findings. For example, pre-employment physical programs are useful only to the extent that they reduce workers compensation injuries or costs. That is, the exams have value only in the losses they prevent.

Loss prevention through accident investigation. It is important to remember that the purpose of investigating accidents is to prevent future occurrences, not to assess blame. The establishment of a closed loop accident reporting-investigation-prevention program cannot be accomplished without the cooperation of the employees at large. Statistics indicate that about 85 percent of all worker's compensation claims are caused by improper work habits, leaving only 15 percent caused by defective "things," such as equipment or stairs.

Loss prevention through accident investigation involves data collection, data analysis and plan formulation and on-the-job safety.

Post-incident cost containment involves containing the extent of damage/injury through proper post-incident activities which includes the acquisition of fire, liability (personal injury to a non-employee) and worker's compensation insurance, and by minimizing the total cost of the incident through proper, post-incident activities.

Data Collection

Many of most effective loss control programs are those which are developed in-house to correct some known problem area. Therefore, what is needed is a method to detect problems early before costs mount or work habits become firmly established. A computer is usually required to sort and classify large quantities of data. In addition, simple, concise procedures for gathering the data on causes and cures for various loss generating incidents must be established.

To assist with data analysis, a loss matrix might be developed. For example, in the case of worker's compensation, the first step in loss analysis would be to categorize losses, i.e., type of employee by type of injury, part of body by type of injury, type of accident by type of injury, part of body by type of accident and type of employee by type of accident.

When the data have been arrayed in matrix format, it is relatively simple to decide where the frequency/severity of loss warrants attention and in what priority order. When the categories have been prioritized, the data from accident investigations can be used to develop plans to prevent future recurrences. Once the closed loop of accident investigation-plan-corrective action-evaluation is established, refinements can be made in the system until it is truly responsive to changes in the patterns of accidents.

As the first line supervisor becomes involved in investigating accidents and completing the proper reports, he or she will gradually become aware of what factors cause accidents. When management has factual information on the actual causes of accidents, it can make adjustments in work routines, equipment, facilities and training to reduce or eliminate the causes of certain accidents.

On-the-Job Safety

In order for the accident prevention program to operate at anywhere near optimum efficiency, it is essential that safety be integrated into each and every part of the employment process. Since 85 percent of worker's compensation injuries are due to employee work habits, it is imperative that the employee be involved to the greatest extent possible.

An important element of safety programs are safety committees. Safety committees can provide significant feedback on how employees view their jobs as well as pinpoint potential problems. However, the employer must be prepared to correct deficiencies identified by the safety committee; otherwise the committee can become a negative factor. Safety committees must receive direction from some source. If it is not the employer, it may be someone or some organization which may have an axe to grind.

To maximize the effectiveness of loss control programs, it is important to include as many employees as possible. Employee involvement can include:

1. Agreements to share verifiable savings with employees.
2. Including safety programs in contract negotiations.
3. Making safety performance part of the employment and performance review process.
4. Education programs for employees to explain and "sell" safety.
5. Incentive programs to create peer pressure for those who might abuse the workers compensation system.

OSHA—Occupational Safety and Health Act

The Federal Occupational Safety Health Administration (OSHA) laws enable individual states to adopt their own laws regulating safety at the workplace providing that the state laws are not less stringent than federal law. Since many states have exercised this option, it is difficult to provide an overview of state occupational safety laws. Every district should obtain from either federal or state OSHA, the "General Industry Safety Orders" or their equivalent for the appropriate state. The goal of all federal and state OSHA laws is the protection of the worker from the hazards of the workplace. In order to ensure compliance, civil and criminal penalties were included in the programs. The following are general procedural requirements of OSHA.

Posting Requirements

The district is required to post the appropriate poster explaining the intent and coverage of the act in each location where there are employees. Annual summaries from the log of occupational injuries and illnesses must be posted where they are visible to all employees. Citations received from federal or state OSHA must be posted in a prominent place where the violation occurred.

Recordkeeping Responsibilities

A daily log of reportable occupational injuries and illnesses must be maintained. The definition of reportable injuries may differ from state to state. Detailed record of each reportable injury or illness must be maintained and available for inspection by OSHA inspectors. At the end of each year, a summary of the log of occupational injuries and illnesses must be prepared. Administrators are required to immediately report to the proper state or federal department all serious or fatal injuries. Definitions may vary. If toxic substances or harmful physical agents are present, records must be maintained and made available to your employees.

OSHA Inspections

The district must allow a compliance engineer to enter the establishment without delay to inspect or to investigate during regular working hours. The compliance engineer may privately question any employee or administrator. The district must allow an employee or his representative to accompany the compliance engineer. All required OSHA records must be made available to the engineer. If the investigation reveals a violation, the district will be given a written citation describing the violation and the length of time to correct the situation.

Complaints

Complaints of unsafe conditions by employees must be investigated within three days with priority given to the most serious complaints. The name of the person submitting the complaint is confidential. Any actions against employees submitting complaints is forbidden. No actions may be taken against any employee(s) refusing to work where any safety or health standard is violated when such violation creates a hazard to any employee.

Appeals and Penalties

If the district receives a citation, it will have fifteen working days to notify OSHA of the desire to appeal. The appeals board can affirm, modify or cancel the citation and proposed penalty.

Generally public employers are exempt from civil penalties, however criminal penalties may be levied against specific managers. Any officer, manager or supervisor may be guilty of a misdemeanor for knowingly violating any standard or safety order of OSHA or for causing another to do so. Being charged under OSHA does not relieve the manager from being charged under other state or local statutes. Company officials have been charged and convicted for the deaths of employees where the hazards were known to the officials.

Property Insurance

Fire Insurance

Standard fire coverage includes protection against losses from fire and lighting and other optional coverages by endorsement. The fire insurance policy is probably the most standardized policy in the insurance industry. The major sections of the fire policy are described below.

The declarations page. This section contains the names and addresses of the insured, names the insurance carrier, the agent or broker, the mortgagee, the premium rate and the property description and location.

The insuring clause. This section indicates that the insurance company will indemnify the insured for loss to the property described when it is caused by the perils stated, provided that loss occurs during the policy period.

Conditions. This section covers collecting when there is other insurance, changes in conditions of the property and concealment or fraud.

Loss provisions. This section deals with required notice, details of the loss, inventory lists, protection of property, loss assessment, subrogation, arbitration and limitations on the insured's right to bring legal action.

Exclusions. Coverage for certain occurrences, such as acts of war, military operations, insurrection and rebellion and nuclear accident, are commonly excluded under most fire policies.

Fire insurance forms. Coverage under standard fire insurance policies is expanded by means of adding the following forms and endorsements:

Dwelling and contents form.
Building and contents form.
Blanket form.
Floater form.
Schedule form.
Reporting form.

Coinsurance (average clause). Fire insurance carriers offer lower premiums in exchange for the requirement to carry insurance equal to a certain percentage of property value. If insurance equal to that percentage is not carried, then the carrier will not pay for the full loss. This potential penalty places a burden on the insured to maintain insurance to valuation.

Agreed amount clause. This clause will, for an additional premium, remove the fear of being under-insured. An annual valuation is supplied to the carrier by the insured. The acceptance by the carrier eliminates any penalties under the co-insurance clause.

Extended coverage. This is probably the most used endorsement as indicated by the common reference to "fire and extended coverage insurance." The additional coverages include windstorm, hail, explosion, riot and civil commotion, damage from vehicles and aircraft and smoke damage.

Additional coverages. Depending on circumstances, districts may choose to opt for "additional coverage" for such items as:

Business interruption insurance (based upon earnings or value).
Rental value insurance.
Valuable papers insurance.
Demolition insurance.
Personal property of employees.
Personal property off premises.
Trees, plants and shrubs.

Deductibles. Premium reductions are available in return for accepting a deductible. Care should be taken in determining the deductible levels for each line of coverage. Schools should almost always have some deductible on property coverages. The size of the deductible would be influenced by the size, financial strength, loss history and management philosophy of the district, as well as market conditions.

If large deductibles are chosen, it is often adviseable to purchase *aggregate stop loss coverage* to limit the exposure of the district to a certain number of deductibles per year. With a $10,000.00 deductible per occurrence, a $50,000.00 aggregate might be chosen.

Another decision is whether to opt for *actual cash value* or *replacement cost*. Actual cash value equals replacement cost less depreciation. This type of coverage should not be purchased unless the district can set aside the funds necessary to offset depreciation. The additional premium for replacement cost coverage is generally more cost effective.

Other Property Coverages

Some coverages, which are closely associated with fire coverage, are referred to as allied lines. They are as follows:

Crop insurance (hail, wind, insects, disease, freezing).
Earthquake coverage.
Water damage coverage.
Sprinkler leakage coverage.
Boiler and machinery coverage.

School districts are responsible for a wide variety of property for which special insurance coverage should be considered. Although most of the property will be owned by the district, some is owned by others, including teachers and students. The district will be required to protect such property from a number of potential types of loss through a number of different insurance vehicles including:

- Personal property floater.
- Messenger robbery.

- Inside robbery.
- Safe burglary.
- Fidelity bond.
- "3-D" bond.

Personal property floater. May be written with either property schedule or a stipulated amount of coverage. A deductible is almost always used to reduce premium cost. Recovery is usually limited to theft or vandalism. Mysterious disappearance is usually not covered.

Messenger robbery covers loss from robbery with threat or actual force. This coverage is primarily for large school districts where fairly large amounts of cash or negotiable papers are carried by district messengers.

Inside robbery covers robbery on the premises. Its use is normally restricted to locations with large amounts of cash such as bookstores, cafeterias and sporting events.

Safe burglary covers loss from burglary of a locked safe or vault on the premises. Recovery is contingent on proof of forced entry.

Fidelity bond insures the district against loss from the dishonest acts of its employees. Coverage may be by position or by name. Coverage is often required by state code.

"3-D" bond coverage is for destruction, disappearance or dishonesty. Blanket type coverage against multiple types of loss may be written in very broad form providing very good but expensive coverage.

While the purchase of the previously mentioned property coverages would ensure comprehensive protection for the school district, the costs would be prohibitive without carefully selected deductibles to control costs.

Boiler and Machinery Coverages

This is probably the least understood area of property insurance. The unusual aspect of boiler and machinery coverage is that the insurance coverage is not as important as the highly technical and specialized inspection service provided by all carriers. Coverages under this category may include:

- Actual property loss.
- Expenses of repair.
- Property damage liability.
- Bodily injury liability.
- Defense settlement and supplementary payment.
- Automatic coverage for newly acquired property.
- Use and occupancy loss.

Boiler and machinery insurances may cover the following types of property:

- Boilers, fired vessels, electric steam generators.
- Unfired vessels.
- Air conditioning and refrigeration systems.
- Electrical transformers.
- Pumps and compressors.
- Engines and machines of various types.
- Fans and blowers.

Coverage on an actual cash value basis will be less expensive to purchase but may leave the district with a large contribution in an era of rising equipment costs. Replacement cost coverage with a reasonable deductible will probably produce more favorable results.

Casualty Coverages (Liabilities)

The hazard called liability is a creation of law unlike the natural hazards to which property is exposed. Unless legally determined to be responsible, there is no hazard named liability. Such determination may be by a court of law or by an administrative body such as a worker's compensation appeals board. Liability is often called the "law of torts" although liability can also be created by accepting liability through some form of agreement or contract.

Three areas of torts are generally recognized: intentional torts, strict or absolute liability and negligence. An intentional tort is one where the person committing the act intends to do what he or she does. Battery, the intentional touching without permission of another person, is an example. Other examples are slander, libel and trespass.

Strict or absolute liability is assigned to those dealing in certain hazardous situations such as the use of explosives. Any damage caused by such use of explosives will be the responsibility of the person using the explosives. *Black's Law Dictionary* defines negligence as "the omission to do something which a reasonable man would do, or the doing of something which a reasonable and prudent man would not do."[3]

In order for negligence to be found, actual loss or damage must arise from the failure to conform to a standard of conduct when there exists an obligation to conform to said standard.

Defenses Against Liability

Some legal doctrines, called defenses, can bar the plaintiff from recovering fully from the defendant. The two most important are assumption of risk and contributory negligence.

Assumption of risk. The injured party must have voluntarily and with knowledge decided to do something which placed him at risk, e.g., the plaintiff voluntarily got into the car of a driver who was obviously drunk.

Contributory negligence. The injured party must, by his actions, have contributed to the harm he or she suffered.

Comparative negligence. In those states which have adopted comparative negligence statutes, the preceding defenses would not be a bar to recovery of damages, but would bring about a reduction in the amount of the recovery. In the past, governmental units such as school districts often were immune to tort actions. Court decisions have removed or eroded such immunities to the point where schools are sued with great frequency in most states. Since the doctrines of governmental immunity vary widely from state to state, it is important to thoroughly understand the applicable laws of your state.

Sources of District Liability

School district liability may result from negligence in three areas:

1. Injury to pupils resulting from failure to provide adequate supervision. The district has a statutory obligation to provide adequate supervision for students. Failure to provide such supervision may be construed as negligence. A serious injury will usually result in such a charge.

2. Injury to persons or property resulting from the failure to maintain a safe place or to conduct operations in a safe manner.

3. Injury to outside persons or property resulting from the negligence of officers, employees or agents of the district.

Anyone authorized to act for the district or apparently authorized to act will be held to the standard of a "prudent person." That is, to act as would be expected of a reasonable, prudent person. Obviously, what constitutes prudence is subject to wide interpretation. Some states, or other jurisdictions, may impose standards which are more strict than ordinary prudence. Statutes often place more strict requirements on school districts than on other public agencies due to the nature of the school's mission.

Liability insurance is mandatory for school districts in most states. Some states also allow the district to self-fund all or part of the liability exposure to the district or its trustees. Coverage against the personal liability of officers and employees while acting within the scope of employment may be required or allowed depending on state statutes. Some acts by officers or employees may be considered as outside of the scope of employment such as libel or slander, and thus may not be insurable. Liability insurance coverage includes investigation of liability claims and defense against liability suits. The liability carrier is obligated to defend the district without regard to the merit of the claim.

The carrier will usually settle any case which its legal counsel does not expect to win. Settlement by the carrier may occasionally be made even though the claim has no merit, if winning is very unlikely. Districts should always try to participate in any decision regarding whether to settle or defend. Settlements are always subject to policy limits and deductibles or self-insured retentions.

Court costs are usually assigned against the loser in a liability suit. In most states, interest begins to accrue from the date of judgment. The posting of a bond will usually be required if an appeal is filed.

Use of school facilities by others. School facilities are used by many people and many organizations every day. Any of these uses can lead to suits alleging a variety of negligent acts or unsafe conditions. The liability coverage should be as broad as possible to protect the district against the wide variety of uses in most communities. In addition to insurance, the district can do much to protect itself against this type of claim. The district should require using organizations to provide certificates of insurance and to name the district as an "additional insured" on their liability policy.

In addition, every school board should adopt a policy concerning the use of facilities. Such use may be partially governed by statute or community expectations. Regardless, administrative procedures should be developed to implement board policy. Property drawn procedures will allow the district to control its liability exposure by eliminating improper uses and controlling other uses. Organizations desiring to use school facilities should have a clear understanding of these rules and requirements.

Bidding Versus Negotiating Insurance

Many districts routinely put their property and liability insurance out to bid every year or at other set intervals, a practice which may be statutorily required in some states. If this is not a requirement, better results may be obtained from other methods. While bidding may give the impression of being in the public interest, the results may not. When the market is tight, changing carriers every year will not produce the best price because brokers, knowing that they may lose the business because someone else is a few dollars lower, may not exert their best efforts.

An alternative method is to develop specifications for the services desired from the brokerage firm. After a selection process, the selected broker helps the district to develop specifications for the coverages required. The broker then obtains quotations from several carriers on the desired coverages including a range of deductibles and limits. The district should periodically evaluate the performance of the brokerage firm in terms of coverages obtained, costs, risk management advice and other services.

Liability Insurance Policies

Broad, comprehensive liability coverage should be sought by every school district. Broad form coverage is available in most states. Special school policies, having the advantage of including the coverages needed by most districts without numerous endorsements, may also be available.

The elements of a standard liability policy are outlined below.

Insuring agreement. This section contains the specific responsibilities of the insurance carrier.

Conditions. This section contains the responsibilities of the school district and outlines the procedures to be followed in case of a claim.

Definitions and special features. This section defines the covered hazards and special features of the policy.

Exclusions. An extremely important section. Exclusions are of two types, standard exclusions, such as nuclear war, and manuscript exclusions which are appended to the contract rather than being part of the pre-printed contract. The district should be very careful about accepting any manuscript exclusions. These can lead to very unpleasant results when claims are filed. Manuscript exclusions are much more common when the insurance market tightens.

Umbrella coverage. It is usually more economical to secure basic liability coverage limits of $500,000 to $1,000,000 and adding increased coverage through an umbrella policy. Another advantage of an umbrella policy is that it usually contains few exclusions and is therefore broader than the underlying liability policy. Any loss covered under the umbrella but excluded under the primary policy is subject to a self insured retention, usually $25,000.

School board liability (errors and omissions). Also known as trustees liability, school leader's liability, or educator's liability, this coverage has become almost a necessity for all school districts. This type of policy provides protection for negligent acts, errors, omission or breach of duty by the institution, trustees, officers, administrators, employees, student teachers and volunteers. The policy pays after a deductible is applied. Trustee's liability supplements general liability coverage and does not replace it. Court awards are usually apportioned between trustee's liability and general liability policies.

Awards for damages. Damages awarded by a judge or jury fall into three categories: special, general or punitive. *Special damages* are usually out of pocket expenses incurred by the plaintiff such as medical bills, loss of earning, property repairs and legal fees. *General damages* may be followed for those losses which are not directly measurable such as pain and suffering. *Punitive damages* may be allowed where the conduct of the defendant is grossly negligent, reckless and done with regard to life and property. Such awards are not insurable in most states.

Worker's Compensation

Worker's compensation laws were enacted to provide a satisfactory method of handling the volume of industrial accidents. Prior to 1900, common law defenses (contributory negligence, assumption of risk, negligent acts of fellow servants) made the handling of claims for injury or death slow and the outcome uncertain. Between 1900 and 1910 employer's liability laws were adopted by some states. In 1911, the first worker's compensation law was adopted.[4] Today each of the states have such laws, in addition to the federal government. Since state laws vary so greatly, it is incumbent upon the school district risk manager to become familiar with the requirements of his or her state.

Worker's compensation laws. Historically a basic tenet of worker's compensation law was that is was the only source of action by an injured employee. Thus, an employer gave up the presumption of fault in return for a single course of action by the employee. Although courts have eroded this doctrine in some states, it is still basically true. A primary goal of worker's compensation law was the sure, prompt and reasonable payment of benefits and medical care to injured employees. This goal has been met more successfully than any of the others. Another goal of worker's compensation law was the reduction of payments to attorneys for handling personal injury claims. This goal has not been achieved due to the active involvement of interested attorneys.

In some states an appeal can be filed even though the employer has not been notified of an injury. Most states require the proof of worker's compensation insurance in order to conduct business. In those states which allow self insurance, a "notice of consent to self insure" is required.

Rating laws. Rates are established by a workers compensation rating bureau for a particular geographical area. Rates are established for classes of employees, i.e., firefighter, general clerical and so on. In some states, school districts may be considered as single class occupations, that is, the rate per $100 of payroll would be the same for all employees.

Experience modification. To encourage safety, worker's compensation rates are modified by a formula established by the bureau, the state fund or commercial carrier. Districts below a certain size may be subject to minimum premium requirements and be charged a higher modification factor than their actual losses would indicate. The formula for calculating a district's worker compensation premium is:

payroll x rate x e.m.f. = premium

Benefits. All states now allow unlimited medical care for industrial injuries or illnesses.[5] Most states provide indemnity benefits (temporary disability) at 66 2/3 percent or higher with some allowing 100 percent. Permanent disability benefits are available according to schedules for the permanent impairment from an industrial injury. Death benefits are paid to the beneficiary of the victim of an industrial accident or illness.

A call for reform of the worker's compensation system is often heard. Proposed revisions may be classified into five groupings:

1. Annually, Congress considers legislation to federalize worker's compensation benefits due to the differences between state benefit levels.

2. The Chamber of Commerce of the United States advocates that all employers have the option of purchasing commercial insurance rather than being subject to a monopolistic situation with the various state funds.

3. More states are allowing the option of self insurance to qualifying employers.

4. The National Association of Insurance Commissioners has adopted model programs for worker's compensation.

5. Some states have adopted a "wage loss" concept whereby permanent disability awards are allowed only for reduction in wage earning capacity. This concept seems to hold out the greatest promise for actual reform of the worker's compensation system.

Self insuring worker's compensation benefits. Most states allow qualifying employers to self fund their worker's compensation exposures. However, many of these states do not extend this privilege to school districts.[4] Where self funding is available, there may be requirements as to minimum size, posting of bonds or other requirements. Excess worker compensation insurance is almost always purchased to stop the loss from any one incident to a pre-determined level such as $100,000. Some states also allow the purchase of aggregate stop loss insurance to protect against combined losses.

Automobile Insurance

Automobile insurance is confusing due to the wide variation in state laws. Many states have compulsory insurance laws, while others have enacted no fault laws or uninsured motorists laws. While the laws among the states vary, almost every state has some form of financial responsibility law. These laws require the suspension of drivers license and/or registration if the owner or operator fails to furnish insurance coverage or furnish security to cover the payment of any judgment arising from an accident.

Automobile insurance policies typically include coverage for automobile liability, collision and comprehensive physical damage. Automobile liability coverage is very similar to that of general liability (previously covered). Physical damage coverage (property damage) or *collision coverage* pays, after the deductible, for loss to owned automobiles and to non-owned autos operated by an insured. *Comprehensive physical damage coverage* pays for physical damage other than collision and may be written with or without a deductible. Comprehensive losses could stem from fire, windstorm, flood and theft. Coverage for personal effects in the owned auto and transportation expense reimbursement are included with the comprehensive coverage. Towing costs may also be included.

Sections of the automobile insurance policy include a declarations page and terms and conditions. The declarations section identifies the insured, the insurance company, coverages and limits, forms and endorsements attached and the policy number. The conditions section specifies which autos are covered, where and when coverage applies, the insurer's obligations, exclusions, who is insured and territories covered.

Uninsured Motorist Coverage

While not mandatory in most states, uninsured motorist coverage is contained in many automobile package policies. One concern for the insurance buyer is to require high enough limits on this coverage. Another concern is to be sure that coverage for underinsured motorists is also included. Many drivers carry only the lowest limits of liability available. Such limits will often be too low to cover a major accident.

There are a number of different automobile policies suited to different types of operations. These will also vary widely from state to state. The district risk manager should ascertain from the broker of record exactly which forms are available in a given state. Automobile package policies, where available, will offer broader coverages than the basic auto policy.

Employee Driving Records

No employee should be allowed to drive a district vehicle or to drive his or her own vehicle on district business prior to obtaining the employee's driving record. In addition, employees should receive an orientation from the district on safe driving practices and necessary report and accident forms.

In at least one court case (*Roane Grain Company vs McFarland*), the employer was held responsible for negligence by allowing an employee with thirteen driving violations to drive a company vehicle on public roads. The punitive damages awarded in this case were $24,000, while the actual damages were only $420. This case dramatically displays the need to obtain employee driving records. The department of motor vehicles will supply this information in most states.

Group Purchase of Insurance

Group purchase of insurance can be accomplished either through the Joint Purchase Agreement or through a less formal joint buying agreement depending on state statutes. The joint powers approach will often combine self insurance with joint purchase depending upon the cost effectiveness of each. Group purchase programs will have various options between deductibles and self-insured retention under insured programs. Under a deductible program, the insurance carrier adjusts claims and the insured pays for losses up to the level of the deductible. Under a self-insured retention program, the insured is responsible for the adjustment of claims below the deductible amount including the costs of investigation and defense. The informal buying group will usually be limited to only the purchase of insurance since there is no authority for the joint exercise of powers. However, the group will usually retain options in selecting individual deductibles, limits and so on.

Potential drawbacks. In an informal buying group, there can be more difficulty in management of the group since it is less formal and members do not have as much of a financial interest. The buying group usually does not have any pooled funds and thus members may move in and out of the pool more freely.

Another problem may arise in the management of the group. Voting procedures can prove to be a stumbling block for the group. Larger districts may prefer a proportional voting formula where the number of votes for each district depend, in part, on the premium volume of the district. Smaller districts will usually prefer to have a single vote per district.

Self Insurance—Self Funding

Although these terms are often used interchangeably, some technical distinctions between the two concepts may be drawn. Self insurance implies that the self insurer is retaining the full risk and funding losses on a "pay as you go" or cashflow basis. Self funding implies that funds have been set aside and allocated to pay for anticipated losses. For convenience, we will use the term "self-insurance," except where it is important to stipulate the funding method.

Self insurance was originally considered only after traditional insurance became unavailable or prohibitively expensive. As the success of self insurance programs has became more widely known, it has become more of an option than a last resort. Self insurance is not a venture to be entered into lightly. Since most administrators who have the responsibility for risk management or insurance purchasing have little background in the technical areas of probability and distribution theory, it is not difficult to underestimate loss potential.

Some states limit self insurance or self funding to certain types of risk such as worker's compensation. Others may limit this approach to districts over a certain size while other states prohibit it completely.

Considerations for the Self Insuring of Risk

Self insurance is not all that different from insurance. That is, the basic requirements of spread of risk, frequency of occurrence, potential for catastrophic loss and determination of risk must be present. Consideration of self insuring any risk must be based upon an objective analysis of these factors. If the necessary skills to accomplish such an analysis are not extant within the district, they should be obtained elsewhere before proceeding.

Minimum size. It is obviously impractical to self insure the liability exposure for one automobile. However it may quite prudent to self insure a fleet of one thousand automobiles. There is no magic formula for computing the minimum size at which the "laws of large numbers" come into play for any given risk.

Spread of risk. Using the example of a fleet of 1,000 autos, self insuring the theft and physical damage portions would be more practical if those vehicles were garaged in several facilities in several cities. It might not make economic sense to self insure them, if they were all housed in one large facility.

Potential for catastrophic loss. The potential for catastrophic loss is much greater if all vehicles are housed together rather than spread across a larger geographical area. Housing all vehicles together would make the purchase of some form of stop loss insurance almost mandatory. Unless insurance is economically unfeasible, self insurance should be considered only as an alternative to purchasing insurance. That is, the decision to self insure should be made only after comparing the attendant costs, benefits and drawbacks of all available options. Self insurance should not be a goal but rather one tool to be considered in the search for ongoing solutions to the problems of managing school district risk. To summarize, the district should consider retaining those losses which may reasonably be anticipated, are recurring, and limited in severity. The threshold for inclusion in these categories will vary as the insurance market fluctuates.

Funding. Items which qualify for self insurance are usually funded in one of two ways. Minor items with high frequency, such as glass breakage, may be treated as expense items. If these items are to be treated as an expense, then funds should be allocated on a line item basis. For larger items with less frequency or higher potential, reserve funds should be set aside. Funds may be reserved in several ways. In those states which allow joint pooling, the funds may be held and invested by a joint powers authority.

Joint Exercise of Powers

Some states statutorily allow public agencies to jointly exercise any power which they individually possess. This device will allow self insurance to become an option for many small districts which could not meet the minimum qualifications for self insuring on their own. The authority to exercise joint powers may include a number of restrictions including: how funds can be invested, what risks can be treated, minimum size, state regulation, deposits or bonds to be posted, licensing and so on. The restrictions imposed are usually a small price to pay for the greatly expanded opportunities available to districts under a self insurance program.

Operations of joint powers authorities. The spread of joint powers authorities has been phenomenal in some states. It has been estimated that in California, 90 percent of all school districts participate in a Joint Power Authority for one or more coverages. Most of the remaining 10 percent are large districts which are individually self insured. The major reason for this figure is that through the Joint Power Authority districts as small as three employees have been able to enjoy the advantages of self insurance. The economies of operating a Joint Power Authority have contributed to their popularity in California. Having a fully qualified risk manager is usually limited to very large districts. Through a Joint Power Authority, any district can have access to the same work products as the largest districts in the state. Investing of Joint Power Authority reserves has reduced the cost of covering risks for the member districts. In many programs, the investment earnings equal or exceed the overhead costs of the Joint Power Authority.

Employee Benefits

Employee benefits have traditionally been handled by the personnel department. However, this situation is now changing due to the spiraling premiums which began to accelerate during the late 1970s. The decisions concerning the placement of benefit coverages require more background in risk management than is often found in personnel departments. In most districts, the cost of benefits is second only to salaries. Some districts have resorted to reporting the cost of benefits on the warrant stub with each payroll.

Spiraling prices have forced the examination of plan benefits for effective delivery and for cost effectiveness. The major bar to such analysis has been the lack of loss experience. The dissemination of loss experience would, of course, be detrimental to the profitability of the carriers, since those accounts with better than average experience would consider alternative funding plans. In order to gain such loss experience, districts may turn to experience rated programs or to self funding. Under such programs, loss data are distributed regularly, although not in as much detail as might be desired. Much depends on the data processing capabilities of the carrier or association.

A thorough analysis of various benefit plans is beyond the average risk manager. In fact, it is beyond many brokers and consultants. This is an area in which it is often wise to consult with the best available expertise to ensure that the benefit plans are designed are effectively, understandably and affordably.

Medical Plans

Medical plans are comprised of two basic types, although there are many variations of each. They are Health Maintenance Organizations (HMO) and indemnity plans.

Health Maintenance Organizations. The HMO act of 1973 requires employers with over twenty five employees, to offer employees a choice between the district's indemnity plan and a federally qualified HMO. The HMO must be offered if it approaches the district or if employees request an HMO. More than one HMO may be offered if the district so chooses and has enough employees to meet any minimum enrollment standards of the plans.[7]

Health Maintenance Organizations will often offer lower premiums than indemnity plans. This is due to the greater control which the HMO can have over costs and the great emphasis on preventive care. Some employees will not choose an HMO because they desire to choose their own doctor.

Indemnity plans. Indemnity plans include those offered by associations such as Blue Cross and Blue Shield and those plans offered by commercial insurance carriers. The similarities between these plans far outweigh their differences. Generally speaking, the "Blues" are often more liberal with respect to minimum group size than commercial insurers. Indemnity plans can be categorized by the types of coverage they provide, such as major medical, basic medical and hospitalization, or a combination. The great majority of policies written for school districts are the combination form which provides basic coverages after the application of a deductible, with major medical costs usually picked up on an 80/20 ratio. In some areas, 100 percent plans have been negotiated. These plans are attractive to employees, but are very expensive and tend to encourage over treatment since almost everything is paid after the deductible, if any.

The high cost of medical plans. The following are some of the reasons why benefit costs are soaring:

1. 100 percent paid plans.
2. History and purpose of the "Blues."

3. Lack of employee motivation to control costs.
4. Lack of understanding of where benefit dollars go.

Historically, fully paid, or 100 percent, medical plans cost the employer at least 7 percent more than plans where the employee pays at least some small part of the cost of medical care.[8] The installation of a deductible or co-pay provision into the plan generally serves as a deterrent to over utilization. Interestingly, the size of the deductible or co-pay does not seem to be as important as the presence of the provision.

The Blue Cross and Blue Shield organizations were originally established to ensure a smooth flow of funds to the doctors and hospitals. While these organizations have accomplished many things in the field of group medical benefits, careful scrutiny is in order since they principally serve the constituents which created them—doctors and hospitals.

Under most, if not all, fully insured benefit plans, there is practically no incentive for employees to control costs or even to pay attention to costs. Employee education is the primary solution for this problem.

Since benefit carriers have usually been unwilling to share loss experience with schools, it should come as little surprise that school administrators have little knowledge of where benefit dollars go. Effective plan design is not possible without knowing the costs of various segments of the benefit plan.

Cost containment activities. Short term solutions to soaring costs may include:

1. Review of existing plans and attendant costs.
2. Alternative funding arrangements.
3. Preferred provider organizations.
4. Professional service review organizations.
5. Audits of provider billings.

Review of existing plans and attendant costs is an area that is beyond the skills of most risk managers. The best available talent should be consulted for this review.

Cost containment is very difficult if not nearly impossible under a fully insured plan. Not only is the trading of dollars with the insurance carrier expensive, it eliminates most of the options normally open to the employer. The options are almost all with the carrier and they have very little reason to control costs under current fully insured plans.

Alternative funding arrangements may be a viable option. Saving premium dollars, however, is not the primary reason for the utilization of alternative funding arrangements. The most important reasons are to gain loss experience and to regain some of the incentives lost to the carriers.

Preferred provider organizations (PPO) are still in the formulative stages and include a variety of types of organizations. The first type of PPO is comprised of members of an existing professional service organization which offers reduced fees and other services, in return for increased traffic through their facility. The second type is usually organized by a professional organizer whose speciality it is to establish PPOs.

Professional Service Review Organizations (PSROs) provide many specialized services to employers and benefit carriers. One of the most utilized is the concurrent review program under which the PSRO screens the length of hospital stays and the charges during the period of hospital confinement. A health professional visits the hospital and reviews treatment and length of stay. Doctors are sometimes asked to justify unusual procedures or seemingly excessive stays. Other programs include prior approval of hospital confinement. This program is currently meeting with much resistance from employee bargaining units.

Audits of provider billings, although often contracted to a PSRO, can be performed by less highly trained and paid staff. Training of employees to spot errors in hospital bills, in particular, can be effective. Of course, an incentive is necessary. The most effective incentive could be to pay to the employee one-half of any error found.

Dental Insurance

The inclusion of dental insurance in employee benefit plans has increased greatly since 1970. It is now an expected coverage in the majority of districts. Three types of plans are generally found in school districts: incentive care plans, prepaid plans and scheduled plans.

Incentive care plans. Under a typical plan, dental costs are reimbursed at 70 percent, up to the plan limit, during the first year of coverage. If preventive care, usually cleaning, is performed on schedule, benefit levels increase to 80 percent the following year and then to 90 percent and eventually 100 percent. There may be a deductible applied. Orthodontia benefits are often minimal, with a lifetime benefit of $500 to $1,000. This benefit is usually limited to minor children. Adding adult orthodontia is very expensive due to the limited offering.

Prepaid programs. Participants are required to use the services of listed dental offices. Deductibles may be used.

Scheduled programs. Payments, up to the annual limit, are based upon a fee schedule. Additional costs are borne by the employee. Premiums to the employer are lower, since increased fees do not result in increased reimbursement. Such plans are not highly popular with employees. Many variations on other types of insurances may exist locally.

Vision Care

A number of different plans are available for vision care. The major difference is in the frequency with which the covered employee may obtain lenses, frames and exams. The more often the benefits are available, the higher the premiums to the district. Deductibles may be used. If the plan is sponsored by an association of opticians, optometrists or opthamologists, the use of members will be encouraged by reimbursing non-members at a lower rate.

Disability Coverage

Coverage may be for either temporary disability, for long-term disability or for a combination. The most important consideration in the purchase of disability insurance is the coordination with existing pension plans and other programs. District purchasing programs not designed with disability insurance specifically in mind will end up paying for coverage never used due to an overlap of benefits. An elimination period is generally present, that is, benefits do not begin until the person is disabled for a specified period of time. Benefits are paid at a set percentage of salary, often 50 percent or 66 2/3 percent. Benefits may be limited to a set number of weeks, months or until retirement or some other event, such as eligibility for state disability programs, takes place.

Life Insurance

Life insurance is in greater or lesser demand depending on whether employee associations or unions provide such coverage. Currently, the district may pay for life insurance with pre-tax dollars, whereas association plans are paid for with after tax dollars. There are four types of coverage usually offered by districts: level term life, decreasing term life, accidental death and dismemberment and travel accident. Not all types will be offered by every district.

Level term. Under this arrangement each eligible district employee receives the same amount of life insurance without regard to age or sex. Additional, optional coverage may be made available through payroll deduction. Premiums are usually very attractive for the optional coverage.

Decreasing term. The amount of coverage depends on the age of the employee, with coverage decreasing with age. Premiums are level. Payroll deduction programs may be available.

Accidental death and dismemberment. Additional coverage against accidental injury can be added to either term life program for very modest premium charges. Payroll deduction programs can be made available.

Travel accident. Some states permit the purchase of this coverage for employees travelling on school district business. Cost is usually very low for $100,000 or more of coverage.

Summary

In summary, the school business administrator must be aware of the function and practices which make up risk management. As insurance premiums continue to grow and with coverages becoming more complex such an awareness is becoming critical. This chapter has presented an introductory overview of this important area of school business management. Competent risk management personnel and quality legal counsel will increase efficient and effective use of taxpayer moneys.

Notes

1. Williams, Chester Arthur, *Risk Management and Insurance* (New York: McGraw-Hill, 1971), 66.
2. Snouffer, Gary H., *Property & Casualty Insurance Agent*, (ARCO Publishing, Inc., 1981), 163.
3. *Black's Law Dictionary*, 4d Edition, (Minneapolis: West Publishing Co.).
4. Chamber of Commerce of the United States, *Analysis of Worker's Compensation Laws* (Washington, D.C.: 1979), 3.
5. Ibid., 4.
6. Ibid., 7-12.
7. California Association of School Business Officials, *Risk Management*, 3d Edition (1980), vii-7.
8. EBPR Research Reports, Charles D. Spencer & Associates, (Chicago, June, 1984).

Appendix A

Sample Policy Statement

It shall be the policy of the governing board of the ______________ School District to maintain a risk management program consistent with all legal requirements pertaining thereto and within the financial capability of the district, providing a program of protection and/or insurance against:

> Loss, damage, or liability as mandated or permitted by the education, government, labor, insurance and other pertinent codes of the state of ________________; to include, but not limited to, loss or damage to the real and personal property of the district, liability of the district and/or the personal liability of members of the governing board and employees of the district for damages to persons or property, including injury or death, losses due to employee dishonesty, worker's compensation liability, and the provision of a program of health and welfare benefits for employees to the limits established from time to time by the governing board.

Under the provisions of this policy, the superintendent shall develop and maintain rules and regulations necessary to implement and administer all aspects of this policy.

APPENDIX B

Rules and Regulations for Administration and Supervision of the District's Risk Management Program

1.0 Management and Control of ____________________ District's Risk Management Program.

1.1 Management and control of the District's Risk Management Program and any and all insurance authorized by the Governing Board shall be a function of the Business Division through such staff allocation of responsibilities as the ________________, Business shall designate.

1.2 The ____________________ shall be the Risk Manager for the District.

1.3 The Risk Manager shall have authority to establish rules and procedures, consistent with Board policy, to insure the safety and well-being of pupils, employees and the public while on or in school district property. Such rules and procedures shall be designed to maintain the District's liability at a minimum and insurance premiums as low as possible consistent with insurance requirements and the exposures insured.

1.4 The latest available professional risk management techniques shall be utilized to identify, analyze and minimize risks inherent in the operation of District programs.

1.5 Risk considered to be unretainable shall be transferred. Such transference shall normally be through the purchase of insurance; however, the use of a "pooling" agreement is permissible if considered in the best interest of the District.

2.0 Program/Site Manager Responsibility

2.1 It shall be the responsibility of each Program/Site Manager to be constantly alert to the risks inherent in its operation and to make every effort to minimize such risks.

2.2 The Program/Site Manager shall educate employees concerning their responsibilities under the Risk Management Program and enlist their support in minimizing such risks.

2.2.1 Each employee shall be charged not only with operating in the safest manner possible, but with alerting others, especially management, to any possible hazard and to safer and/or better methods of operating.

2.3 Each Program/Site Manager shall be charged with the safekeeping of all assets charged to the program, and with the security of the facility which houses the program, unless that duty has been specifically charged to another person.

2.4 Program/Site Activities. Each Program/Site Manager shall be responsible for the following:
  2.4.1 Completion of questionnaires and survey forms on existing activities.
  2.4.2 Notification of new or proposed activities to the Risk Manager.
  2.4.3 Cooperation with the Risk Manager for on-site inspections and analyses of physical operations.

2.5 Program/Site Safety Committee
  2.5.1 Each Program/Site Manager shall form a safety committee which shall meet at least monthly to inspect facilities and equipment.
  2.5.2 Copies of safety committee reports shall be forwarded to the Risk Manager.

3.0 Placement of Insurance
  3.1 The Risk Manager shall make every effort to obtain insurance coverage at the most economical cost, consistent with required service, by obtaining quotations, by competitive bidding, or through negotiation, using whichever method is considered most advantageous to the District.

  3.2 The Risk Manager shall report insurance requirements, together with all relevant information including premium quotations, and recommendations for placing such insurance to the Superintendent, who shall present such recommendations to the Governing Board.

  3.3 Upon authorization by the Governing Board, the Risk Manager shall place such insurance in accordance with said authorization and the relevant provisions of these rules and regulations.

  3.4 In an emergency, the Risk Manager shall place insurance; and the Superintendent shall immediately report such placement for ratification by the Governing Board.

  3.5 The Risk Manager shall be responsible for maintaining continuous coverage of all insurance programs mandated by law or Board Policy.

4.0 Types of Exposures to be Protected Against
The following insurance shall be carried in accordance with applicable rules and regulations and/or such self-insurance program as the Governing Board may authorize:
  4.1 Fire and extended coverage insurance covering all buildings at replacement cost which are owned or occupied by the District, in such amounts as are authorized by the Governing Board.

  4.2 Comprehensive liability insurance or a self-funded program covering the District, members of the Governing Board, District officer and employees while acting in the discharge of their duties within the scope of their employment and/or under the directions of the Governing Board. Errors and Omissions coverage should be included in the comprehensive liability package or as a separate policy.

  4.3 Fidelity bonds protecting the District against loss occasioned by fraud or dishonesty of officers, employees and agents of the District.

  4.4 Worker's Compensation insurance or a self-funded program covering all employees and volunteers of the District, pursuant to the Labor Code of the State of ________________ and sufficient to provide benefits as prescribed by law.

4.5 Casualty, fire, theft and extended coverage insurance on selected vehicles owned or operated by the District to the limits as specified by the Governing Board.

4.6 Burglary and robbery insurance covering such monies and property as specified by Board action.

4.7 Boiler and pressure vessel property damage insurance, covering boilers and such pressure vessels and property to such limits as authorized by the Governing Board.

4.8 Sprinkler leakage insurance on property where designated by the Risk Manager and authorized by the Governing Board.

4.9 Umbrella accident insurance for students participating in field trips and athletic events and who are not otherwise covered.

4.10 Student accident insurance will be made available and the premium paid by the student's parent or guardian.

4.11 Programs of insurance in the area of employee fringe benefits such as: hospital and medical insurance, dental insurance, life insurance, long-term disability insurance; but only in the kinds and to the limits authorized by the Governing Board.

4.12 Such other insurance coverage as the Governing Board may authorize.

5.0 Insurable Value—Buildings and Contents

5.1 The insurable value of a building shall be defined as the replacement cost of such building less the non-insurable items set forth in the District's fire insurance forms.

5.2 The term "contents," as used in connection with insurance, shall be defined to include all personal property not specifically excluded by the terms of the standard form for fire insurance policies.

6.0 Settlement of Losses

6.1 When any property covered by insurance is lost, damaged or destroyed, a notice concerning the loss shall be sent immediately to all affected carriers or their representatives. The Risk Manager shall act as adjuster for the Governing Board in the settlement of losses and shall sign the Proof of Loss as authorized. The Superintendent shall recommend to the Governing Board, as soon as practicable, a basis for settlement and, upon adoption by the Governing Board, the agreed amounts shall be collected from the insurance company(ies) and deposited to the credit of the District in accordance with procedures governing such collection.

7.0 Liability Claims Procedure

7.1 All Claims for Damages filed with the District pursuant to the Government Code of the State of ________________ shall be referred to the appropriate insurance carrier or self-insurance administrator for recommendations regarding acceptance or rejection of the claim. Such recommendations shall be presented to the Governing Board for Approval. For all claims rejected by the Board, a written notice of rejection shall be sent to the claimant. Such notice shall contain a warning advising the claimant of the statutes for filing court action pursuant to Section ______ of the Government Code of the State of ________________.

APPENDIX C

Glossary

Adjuster. Person (or organization) who settles claims covered under an insurance contract. May be company or independent adjuster.

Admitted company. An insurance company licensed by the insurance department of a state to do business within that state.

Adverse selection. Situation (usually a deviation from insurance company procedures) which fails to produce a proper cross-section of risk.

Agent. A representative of an insurance company who has the authority to bind the company under certain situations.

All risk. A type of property and casualty policy which covers all perils except those specifically excluded.

Application. A statement of information made by a person applying for insurance.

Appreciation. The amount by which property has increased in value due to increased cost of construction or inflationary factors.

Assigned risk plan. In auto insurance, a plan for distributing higher risks among companies on the basis of premium volume written.

Bailee. The person who takes possession of goods for safekeeping, service or repair.

Binder. A memorandum from an insurance company confirming that coverage is in effect pending issuance of an insurance policy.

Blanket policy. A single contract which covers a number of locations or risks.

Broad form. An insurance contract covering additional perils as compared to a standard policy.

Broker. Represents the insured in negotiating coverage with insurance carriers. May also be an agent for one or more companies. The terms agent and broker may be interchangeable in some states.

Broker of record. A broker named by the insured as the exclusive representative of the insured in all negotiations with insurance carriers for that line of business.

Business interruption. Coverage against loss of business income from fire or allied risk.

Co-insurance. Also known as average clause or contribution clause, applies only when a loss occurs and results in a sharing of the loss between the carrier and the insured when the amount of insurance carried does not equal an established (in the insurance contract) percentage of the total value of the property insured.

Common law defense. Assumption of risk, contributory negligence, and the fellow servant rule were available defenses to employers when employees were injured prior to worker's compensation laws.

Comparative negligence. Laws which allow a judge and/or jury to decide upon the comparative degree of negligence between the plaintiff and defendant. Damage awards will be affected. Contributory negligence would not be a bar to recovery under such laws.

Commission. The amount paid by the insurance company to the agent or broker for producing the business. Usually established as a percentage of the premium, commissions vary according to the line of business and premium volume.

Concealment. The failure by the insured to disclose a material fact which might influence the carrier's acceptance of a risk. Intentional concealment may void the insurance contract.

Consequential loss. A loss not directly caused by the peril insured against but resulting from the insured peril.

Coverage. The type of protection provided by an insurance policy.

Deductible. The amount of the loss which the insured assumes toward a loss before the carrier becomes liable for its share.

Depreciation. The amount charged off each year to cover aging and obsolescence of property.

Deviation. The amount by which a rate differs from one published by a rating bureau.

Direct writing company. Insurance companies which sell insurance by means of their own sales force.

Discovery period. In fidelity bonds, the period following a theft during which the theft is discovered. The allowable period will vary with the type of bond.

Earned premium. The amount of premium covering the period during which the policy has already been in force.

Endorsement. A written attachment to a policy which adds coverage or modifies provisions of the original contract.

Estoppel. A legal restraint on a person to prevent him or her from contradicting his own previous assertion.

Excess insurance. A policy which provides coverage only after the limits of the basic policy (and other underlying policies) have been exhausted.

Experience. The claims history of a risk or insured.

Exclusions. Specific perils set forth as not covered under the policy. Standard exclusions are contained in the body of the policy. Manuscript exclusions are tailored to the specific risks of the insured.

Extended coverage. The most common endorsement added to a standard fire policy covering windstorm, hail, explosion, riot and civil commotion, smoke damage and damage from vehicles and aircraft.

Fidelity bond. Contract under which losses sustained by an employer, due to the dishonesty of a covered employee, are reimbursed as surety.

Financial responsibility law. Law which provides for the suspension of registration and/or drivers license if the owner or operator fails to furnish security or insurance coverage for any judgment arising from an accident.

Floater. A type of policy covering property of a portable nature.

Friendly fire. One lighted and contained in a usual place for fire and used for common purposes.

Group insurance. Coverage for a number of persons under a single contract, providing that the group is not formed specifically for the purpose of securing insurance.

Hazard. That which causes a peril to come to pass.

Hostile fire. An unexpected fire in a place not intended for the fire to be.

Hull coverage. Physical damage coverage for a marine vessel or an aircraft.

Indemnity. Compensation for the actual amount of damage, loss or hurt incurred under a property or casualty policy. Opposite of a valued contract.

Inland marine coverage. Insurance against property in transit on land.

Insurable interest. The amount which the insured would lose if a loss occurred for which there were no coverage. Insurance cannot be purchased unless the insured has an insurable interest.

Insurable risk. A risk having the characteristics which make it insurable. It must be: susceptible to the law of large numbers; the probable occurrence of loss must be uncertain; the loss must be significant; the cost of insuring the risk must be low compared to the coverage; and the risk must be determinable.

Insurable value. The present worth of the property to be insured considering depreciation, exclusions, etc.

Insurance. A business or system whereby indemnity is guaranteed by one party to another, for consideration (premium), to cover certain contingencies and upon specified terms.

Insuring agreement. That part of an insurance contract which covers the agreement to protect the insured against loss from specified perils, or to pay benefits under specific circumstances.

Intentional tort. The person committing the act intends to do what he does, e.g., assualt, battery. See tort.

Larceny. The felonious taking and carrying away of goods of another with intent to convert it to the taker's use.

Liability insurance. Coverage against the hazard of the possibility that the insured may be held liable in a court of law, or by an administrative body, to pay damages to another person for injury to that person, his property, or other interests.

Limit of liability. The maximum amount which the insurance company is obligated to pay under the coverage.

Lloyds of London. A group of underwriters making contracts of insurance. Each underwriter (individual or group) is liable for the portion of the risk to which he subscribes.

Loss ratio. A percentage factor derived by dividing the dollar amount of losses by the premium. Also called pure loss ratio, if expenses of operation are not included with losses.

Malpractice insurance. Liability coverage against legal liability on account of improper or negligent treatment or procedures by the insured.

Manual rating. Standard risks are charged rates contained in a manual of rates. See deviation for rates which differ from manual.

Master policy. One in which all general conditions are set forth, and under which certificates referring to the master policy and describing the particular transaction are sent to individual insureds.

McCarran-Ferguson Act (Public Law 15). Federal law which stipulates that regulation of the business of insurance shall remain under state control except where Congress has enacted specific legislation.

Merit rating. Rate reduction from established rates for a particular class based upon good loss experience for an individual policyholder. Usually available only at renewal.

Misrepresentation. A statement of fact by the insured which is untrue and which the insured knows to be untrue and with an intent to deceive. Material misrepresentation is a ground for voiding an insurance policy.

Mutual assent. A necessary element to an insurance contract. Usually characterized by an offer and acceptance between two parties.

Negligence. The failure to act as a reasonable and prudent person would under the particular set of circumstances.

Policy. A written agreement or contract to insure certain enumerated risks.

Premium. The consideration charged by an insurance company for a given policy.

Products liability. The liability associated with damages resulting from some product manufactured and/or sold.

Proof of loss. A formal statement itemizing the details of a loss which the insured or his agent submits to the carrier.

Pro-rata cancellation. Provideds for the return of the entire unearned premium corresponding to the balance of the contract period without the penalty associated with short rate cancellation.

Rate. The amount charged for each unit of exposure for a given period, usually one year and generally per $100 of coverage.

Replacement insurance. Provides for reimbursement based upon like kind and quality without deduction for depreciation.

Replacement value. The cost of replacing lost or destroyed property with like kind and quality.

Reporting policy. The insured is required to report values at risk at periodic, established intervals (annual, quarterly, monthly, etc.). Premiums are based upon actual exposures rather than estimated exposures.

Representation. An oral or written statement by the insured to the insuror, prior to the completion of the contract, relating to the risk to be insured.

Reserve. The sum set aside to cover the expected amount of the loss.

Risk. The danger or hazard of loss of the insured property, usually calculated as a percentage.

Robbery. The felonious taking of personal property against the will of the victim by means of force or fear.

Retention. 1) The amount of coverage retained by a carrier after the placement of reinsurance. 2) In employee benefit coverages, the portion of the premium charged for overhead and profit as opposed to claims payments and reserves.

Rider. An attachment to a policy adding coverage.

Salvage. 1) In bonds, the amount recovered from the employee who is the subject of a fidelity bond. 2) The value of property remaining after damage by a fire or other loss.

Stock company. An insurance company in which the initial capital investment is by the sale of stock, and is thereafter managed as any other publicly owned corporation.

Short rate cancellation. When a policy is cancelled unilaterally by the insured, a penalty is generally extracted by the carrier rather than return the full unearned premium. The penalty may range up to 11% of the unearned premium.

Strict liability. Liability without the necessity of establishing that the defendant is at fault. Often associated with dangerous materials.

Subrogation. The right of the insuror to recover from a third party any sums paid on a loss where the third party is judged to be at fault.

Surety. In bonds, the person or company which makes good the promise of the principle to the obligee.

Surety bond. A contract under which a person (surety) agrees to perform on behalf of the principal that which was promised to the obligee.

Tort. A wrongful act, damage or injury done willfully, negligently or in circumstances involving strict liability, for which a civil suit can be brought.

Unearned premium. The portion of advance premiums represented by the unexpired portion of the policy period.

Valued contract. An insurance contract which pays the insured, or beneficiary, a certain amount without regard to actual loss. Life insurance would be an example. Opposite of indemnity contract.

Waiver. The voluntary and intentional relinquishment of a known right or privilege or conduct to warrant such an inference.

Warranty. A part of an insurance contract which relates to the risk insured against, in contrast to a representation which is made prior to completion of the policy.

Worker's compensation. Statutes setting forth the strict liability of employers for the injuries to employees while at work.

APPENDIX D

Awards For Damages

Special Damages

Usually out of pocket expenses incurred by the plaintiff, such as medical bills, loss of earnings, property repairs, and legal fees.

General Damages

May be allowed for those losses which are not directly measurable, such as pain and suffering.

Punitive Damages

May be allowed where the conduct of the defendant is grossly negligent, reckless, and done without regard to life or property.

14

Foodservices At School

Dorothy Van Egmond-Pannell

What's for lunch? Often the aroma has penetrated the halls by 11 a.m. and one can guess what's for lunch. A question that faces every school administrator or school district at one time or another is what to do about food at school. Will they sell snack items from a vending machine? Will they have a school lunch program? Is that the school's obligation? Who will run it?

Over 90 percent of the nation's 89,200 public schools participate in the Child Nutrition and National School Lunch Programs which serve over 23.9 million children a day a nutritional lunch. The funding provided by these federally subsidized programs is carefully regulated. Since such a large percentage of the public schools and many private schools participate in these federal programs, this chapter will concentrate on meeting the federal regulations and running a successful, cost-effective lunch program.

Operating a financially successful school lunch program that meets federal and state regulations is no easy task. Explaining how to do it in one chapter is impossible; therefore, two government publications, a manual published by ASBO International, and a textbook, are recommended for additional information and guidance.
These sources are:

Menu Planning Guide for School Food Service, 1983, PA 1260, United States Department of Agriculture. It may be obtained through the U.S. Government Printing Office, Washington, DC, or the state supervisor for Child Nutrition Programs.

Food Buying Guide for Child Nutrition Programs, 1984, PA 1331, United States Department of Agriculture. It may be obtained through the U.S. Government Printing Office, Washington, DC, or the state supervisor for Child Nutrition Programs.

The School Foodservice Handbook, A Guide for School Administrators, 1987, Association of School Business Officials International. It may be obtained from Association of School Business Officials International, 1760 Reston Ave., Suite 411, Reston, VA 22090.

School Foodservice, 1985, by Dorothy Van Egmond-Pannell. It may be obtained from AVI Publishing Company, Inc., P.O. Box 831, Westport, CT 06881.

Brief History

Beginning in the early 1900s many teachers were trying to find ways to feed poor children. Farmers would donate food and the smell of a pot of soup cooking on a wood burning stove was common in schools. Federal funds were first available in the 1930s to buy some surplus commodities.

The School Lunch Program grew rapidly because teachers and principals knew there would be few eager minds with empty stomachs. When Works Project Administration (WPA) provided funds to hire the unemployed and needy women, the school lunch program had its first paid staff.

World War II slowed the progress. However, at the end of the war school lunch was recognized as being important. It is important to note that many young men failed military physical examinations because of malnutrition. This problem needed to be corrected. General Hersey stated before Congress that it was in the best national interest to operate a sound program that would provide nutritious food. Also, the program provided an outlet for surplus farm products.

The National School Lunch Act was passed in 1946 and signed into law by President Truman. It placed emphasis on "safeguarding the health and well-being of the nation's children." The National School Lunch Act provided a small subsidy for all children's lunches between 1940s and 1960s. The subsidy was not enough to cover the cost of the needy child's lunch; however, those children were served by many school districts.

The following are basic requirements most of which are still in effect today:

1. Serve lunches that meet nutritional requirements as set by the Secretary of Agriculture. (The program was put under the Department of Agriculture to administer because of the connection with donated foods.)

2. Serve meals at no or little cost to needy children, under guidelines set by local school officials. (Guidelines are now set by the federal government.)

3. Operate the program on a nonprofit basis.

4. Utilize donated foods as much as possible.

5. Keep records of income and expenses to be submitted to state agencies. The program is administered at the state level by the Department of Education.)

In the 1960s, politicians realized poverty was severe in some parts of the country. A group of Congressmen toured the South and were shocked by how hunger affected children. As a result, the Child Nutrition Act of 1966 became law which made available additional funds and programs. The Breakfast Program was begun on a pilot basis. Money was provided to assist with purchasing equipment (which was cut in the early 1980s). A federal free and reduced-price meal program policy was established with poverty income guidelines and application procedures. Funds were made available to defray the costs of providing meals free or at reduced prices.

Until 1981, funding increased for school lunch programs. The first federal reduction in subsidy came in early 1981, however, sending school lunch prices up across the country an average of 15-20 cents. Despite the fact that the President's Budget has proposed cuts yearly since 1981, Congress has usually left the program's budget alone since it affects so many people. Nevertheless, the rising federal deficit of the late 1980s continued to make school officials feel uneasy about future funding for the school lunch and breakfast programs.

On the national level the Child Nutrition programs are very political. Laws and regulations frequently cause changes in the way the programs operate.

The following pages of this chapter discuss only those federal regulations that appear to be "permanent" for the next few years. Each year, it is wise to ask the state supervisor assigned to your area what changes in the regulations have been made.

Basic Program Requirements and Characteristics

In order to be eligible for federal funds under the National School Lunch and Child Nutrition programs, schools must agree to the following:

1. *Operate a non-profit program.* As much as a three-month operating balance may be kept on hand and still be considered non-profit. Management companies operating at a profit are exempted.

2. *Serve meals (lunches and/or breakfast) which meet nutrition requirements.* Originally known as the "Type A" lunch, the varied portion-size meal pattern discussed later in this chapter was released in 1980.

3. *Price the meals (lunches and/or breakfasts)* as a unit. This limitation does not prevent foods from being sold as separate items. In order for a lunch to be counted as a reimbursable lunch, however, it must be priced as a unit. Sales of seconds will be additional income.

4. *Supply free and reduced-price meals to eligible needy children.* Uniform Policy requirements must be carefully followed.

5. *Agree to avoid discrimination.* No child may be refused a meal under the program because of their inability to pay or due to their race, sex, color or national origin.

6. *Keep accurate records of income and expenditures.* These records are subject to state and federal audits. These records are to be maintained for three full school years plus the current year.

7. *Complete a formal reimbursement claim.* The written claim must be sent on a timely basis each month to the state.

8. *Distribute applications for free and reduced-price meals.* At the beginning of each school year each student enrolled in an eligible school must receive applications to participate in the program.

9. *Review and act on free and reduced-price meal applications.* In accordance with state guidance materials, parents/guardians must be notified

with respect to any action taken on their application. Refer to the Uniform Policy issued yearly by the state for details.

10. *Develop and implement a verification procedure.* To confirm eligibility for free and reduced-priced meals free and reduced-price meal applications must be developed and disseminated.

11. *Maintain accurate participation records.* Establish a procedure for obtaining accurate meal count by category (paid, free, reduced, adult) on the serving line at the point of service.

12. *Establish and implement purchasing procedures.* These must be in compliance with state and federal regulations.

13. *Utilize federally donated foods or commodities.* This includes the ability to store them correctly, so that they do not spoil.

Regulations Regarding Foods Served

The nutritional requirements of the National School Lunch and Child Nutrition programs for lunch can be understood by carefully going over the School Lunch Patterns shown in Table 14:1. The two guidance materials published by USDA are essential to fully understanding the School Lunch Patterns and to assuring they are being carried out. Those guides are the *Food Buying Guide* and the *Menu Planning Guide*.

School Lunch Pattern

The nutritional goal for school lunches is to provide approximately one-third of the Recommended Dietary Allowances (RDA) as specified by the National Research Council for children of various ages. The nutrition standards include 19 vitamins and minerals plus protein and calorie requirements. The School Lunch Patterns provide a framework for planning nutritionally adequate school lunches.

According to federal regulations, in order to receive reimbursement a school's lunch must contain four components and five menu items. The four components are: 1) meat/meat alternate, 2) vegetable and/or fruit, 3) bread/bread alternate, and 4) milk. As table 14:1 indicates, two vegetable/fruit components must be included on the menu.

The lunch patterns provide five portion sizes based on ages and grades. Group IV will meet all age groups' requirements. It also most resembles the original "Type A" lunch, which was used as the guide until 1980. Group IV serving sizes are discussed as an example of the meal pattern.

Meat and Meat Alternate. One serving is equal to two ounces of edible lean meat, poultry, or fish or meat alternate, such as two ounces of cheese, one egg, one-half cup of cooked dried peas or beans, or four tablespoons peanut butter or any combination of these items. The meat or meat alternative must be served in the main dish and one other item. Serve no one form of meat or meat alternative more than three times a week if no choice is offered.

Table 14:1 School Lunch Patterns For Various Age/Grade Groups

U.S. Department of Agriculture, National School Lunch Program

USDA recommends, but does not require, that you adjust[1] portions by age/grade group to better meet the food and nutritional needs of children according to their ages. If you adjust portions, Groups I-IV are minimum requirements for the age/grade groups specified. If you do not adjust portions, the Group IV portions are the portions to serve all children.

COMPONENTS		MINIMUM QUANTITIES				RECOMMENDED QUANTITIES[2]	
		Preschool		Grades K-3	Grades 4-12	Grades 7-12	
		ages 1-2 (Group I)	ages 3-4 (Group II)	ages 5-8 (Group III)	age 9 & over (Group IV)	age 12 & over (Group V)	SPECIFIC REQUIREMENTS
Meat Or Meat Alternative	A serving of one of the following or a combination to give an equivalent quantity:						• Must be served in the main dish or the main dish and one other menu item. • Vegetable protein products, cheese alternate products, and enriched macaroni with fortified protein may be used to meet part of the meat/meat alternate requirement. Fact sheets on each of these alternate foods give detailed instructions for use.
	Lean meat, poultry, or fish (edible portion as served)	1 oz	1½ oz	1½ oz	2 oz	3 oz	
	Cheese	1 oz	1½ oz	1½ oz	2 oz	3 oz	
	Large egg(s)	½	¾	¾	1	1½	
	Cooked dry beans or peas	¼ cup	⅜ cup	⅜ cup	½ cup	¾ cup	
	Peanut butter	2 Tbsp	3 Tbsp	3 Tbsp	4 Tbsp	6 Tbsp	

Vegetable And/Or Fruit	Two or more servings of vegetable or fruit or both to total	½ cup	½ cup	½ cup	¾ cup	¾ cup	• No more than one-half of the total requirement may be met with full-strength fruit or vegetable juice. • Cooked dry beans or peas may be used as a meat alternate or as a vegetable but not as both in the same meal.
Bread Or Bread Alternate	Servings of bread or bread alternate A serving is: • 1 slice of whole-grain or enriched bread roll, muffin, etc. • A whole-grain or enriched biscuit, roll, muffin, etc. • ½ cup of cooked whole-grain or enriched rice, macaroni, noodles, whole-grain or enriched pasta products, or other cereal grains such as bulgur or corn grits • A combination of any of the above	5 per week	8 per week	8 per week	8 per week	10 per week	• At least ½ serving of bread or an equivalent quantity of bread alternate for Group I, and 1 serving for Groups II-V, must be served daily. • Enriched macaroni with fortified protein may be used as a meat alternate or as a bread alternate but not as both in the same meal. NOTE: *Food Buying Guide for Child Nutrition Programs*, PA-1331 (1983) provides the information for the minimum weight of a serving.
Milk	A serving of fluid milk	¾ cup (6 fl oz)	¾ cup (6 fl oz)	½ pint (8 fl oz)	½ pint (8 fl oz)	½ pint (8 fl oz)	At least one of the following forms of milk must be offered: • Unflavored lowfat milk • Unflavored skim milk • Unflavored buttermilk NOTE: This requirement does not prohibit offering other milks, such as whole milk or flavored milk, along with one or more of the above.

NOTES: 1 Group IV is highlighted because it is the one meal pattern which will satisfy all requirements if no portion size adjustments are made.

2 Group V specifics recommended, not required quantities for students 12 years and older. These students may request smaller portions, but not smaller than those specified in Group IV.

Vegetable and/or Fruit. The required three-fourths cup must consist of two or more servings of vegetables or fruit or both. Full-strength vegetable or fruit juice may not be counted for more than one-half of the total requirement.

Bread or Bread Alternate. The minimum quantities for the bread or bread alternate component are eight servings per week. Regulations specify that a minimum of one bread or bread alternate must be served each day. Only breads or bread alternates that are whole-grain or enriched may be used to meet the required amounts. One serving of bread or bread alternate is equivalent to: a) one slice of whole-grain or enriched bread; b) an enriched biscuit, roll or muffin; c) one-half cup of cooked enriched rice; d) one-half cup of cooked macaroni, noodles or other whole-grain or enriched pasta; or e) one-half cup serving of cereal grains such as corn grits or bulgar.

Milk. The milk component is met by serving one-half pint of fluid milk. Schools must offer unflavored lowfat milk, unflavored skim milk or unflavored buttermilk. In 1986, Congress discussed the possibility of requiring that whole milk be offered. Flavored milk may also be offered as a choice.

Other Foods. Add as necessary to complete lunches, to help improve acceptability and to provide additional food energy (calories) and other nutrients. To help ensure that all school lunches meet the nutritional goal, the following recommendations have been suggested:

1. A choice of foods should be offered.

2. The amount of fats, salt and sugar in the lunch should be kept at a minimum.

3. Vegetables or fruits rich in Vitamin A should be served at least twice a week.

4. Fruits or vegetables rich in Vitamin C should be served several times a week.

5. Several foods rich in iron should be served each day.

Refer to the *Menu Planning Guide* for a complete list of foods high in Vitamin A, Vitamin C and iron. Refer to the School Lunch Patterns table for portion sizes.

To comply with federal regulations, the complete school lunch must be planned and offered to students and consist of a menu of the following five food items:

- Meat or meat altenate
- Vegetable or fruit #1
- Vegetable or fruit #2
- Bread or bread alternate
- One-half pint milk

Other foods, such as dessert, may be added. However, the "offer" requirements apply to the basic five food items.

"Offer versus Served"

In order to minimize food waste in the National School Lunch Program, Congress has established "offer versus serve" requirements which allow students to choose less than all five food items within the lunch pattern. While Public Law 94-105 requires that high school students be *offered* all five food items of the school lunch. according to "offer versus served," students can refuse two of the five menu items which they do not intend to eat, thus reducing plate waste. The choice of three or four items does not relieve the non-needy child from paying the full price of the meal.

Local School Food Authorities (SFAs), persons within a school district with the legal authority to enter into a food services contract, may also permit students in junior high, middle schools or elementary schools to select three or four items rather than five items under "local option." The "offer vs. served" provision applies only to the lunch program; it is not allowed in the school breakfast program. Schools are encouraged to emphasize merchandising techniques and serve food attractively in order to encourage students to choose all five menu items.

School Breakfast

School breakfast under the federally funded programs must contain as a minimum:

- ½ cup serving of fruit, vegetable, or fruit or vegetable juice,
- 1 serving of whole grain or enriched bread, bread alternate, or cereal, and
- ½ pint of fluid milk

All parts of the breakfast must be served, since breakfast are not eligible for the "offer vs. served" provision.

To improve the nutrition of the participating children, breakfast should also include, as often as possible, a meat or meat alternate, such as one egg, one-ounce serving of meat or cheese, or two tablespoons of peanut butter. Congress has discussed increasing the funding to enable protein-rich menus to be offered more often. There may be additional state requirements on what is to be served, and some states have mandated breakfast programs.

Reimbursement

As with the lunch program, the federal reimbursement rates for each breakfast served students is based on the income of the participating student. Where available, students who qualify for a free or reduced-price lunch, also qualify for a free or reduced-price breakfast.

If a school has over a certain percentage of students qualifying and eating free and reduced-priced lunches, the school will qualify for "severe need" assistance, which is a higher breakfast reimbursement rate. This should be checked yearly by the school administration. For example, if in 1985 a school served over 40 percent free and reduced meals, that school qualifies the following year for "severe need" rates.

Competitive Foods

Competitive food regulations of the state and federal governments may differ; therefore, it is important to learn what the state requirements are currently. Local school districts can establish their own regulations, which must include the state and federal regulations, but may (and should) exceed these regulations.

U.S.D.A. Donated Commodity/Food

The United States Department of Agriculture (USDA) offers surplus or otherwise available foods to each state for the lunch program under the Commodity Program. Congress' annual appropriation includes funds for both cash assistance and for the purchase of agricultural commodities. These foods are usually of good quality. Once the school accepts commodities, it is responsible for ensuring that they are stored properly and utilized.

The USDA acquires foods for donation under three authorizations:

Section 6 (National School Lunch Act). These foods are restricted to the schools participating in the National School Lunch Program and are to be used only in preparing pattern lunches.

Section 32 (Public Law 320 as amended in 1936). If a school receives Section 32 commodities with the letter R in front of the 32 (R32), this indicates that the commodity is restricted and is to be used in the same manner as Section 6 commodities.

Section 416 (Agricultural Act of 1949). May be used in all phases of the school feeding programs.

Allocation of Commodities. Commodities are offered to schools on an "offer and acceptance" basis with the exception of Section 6 items purchased from the National School Lunch appropriations. These items are allocated as they become available to schools participating in the National School Lunch Program on the basis of the certified approved participation.

Lost, Spoiled or Damaged Commodities. Schools are financially responsible for commodities lost through spoilage or theft due to negligence or failure to provide adequate protection in the way of proper storage or protection of the commodities in possession of the school. If a substantial loss of commodities due to spoilage, infestation, fire or theft occurs, it should be promptly reported to Food Distribution at the state level.

Alternative to Commodities. Many school districts have found the USDA commodity program to be very rigid, expensive, wasteful and not geared to students' tastes. In 1981, Congress mandated a three-year study of two alternatives—*Cash* and *Commodity-Letter-of-Credit.* The sixty-six school districts testing the alternatives found the alternatives to be a considerable improvement over the USDA commodity program. With the CASH alternative the entitlement moneys were provided with little restrictions. With the Commodity-Letter-of-Credit alternative, the moneys are earmarked for specific foods that USDA has determined to buy under the commodity programs. The study found the advantages of the alternatives to be improved flexibility, reduced labor needs, improved student acceptance of menus served and reduced transportation and storage costs. There was very little, if any, negative effect on the farm market with the use of the alternatives nationwide.

Many supporters of the school lunch program consider it politically unwise to break any ties with the agricultural community, and, therefore resist any change in the commodity program. Others argue that the Commodity-Letter-of-Credit alternative maintains farming ties and is a manageable solution as a local option. While changes of this nature are generally slow to happen in this program, however, the growing discontentment with the present commodity program may promote an option-type alternative in the near future.

Aims Audits

In 1983, USDA began requiring states to periodically perform on-site audits of all school districts. The audits are referred to as AIMS audit—Assessment, Improvement, and Monitoring System. The audits determine whether or not the local school foodservice is: 1) offering or serving meals that meet the meal pattern requirements; 2) carrying out the free and reduced-price meal policy requirements; 3) accounting for meals served at the point-of-sale correctly; and 4) is in compliance with all the state and federal regulations. If deficiencies or errors are found to be present, the local school district is usually provided time to correct the problems. If the problems are not corrected the penalty is usually loss of funding.

Organization

How a school district organizes foodservices within its structure depends on a number of factors including: 1) the relative importance placed on nutrition and foodservice vis à vis educational goals; 2) the size and number of schools within the district and the size of the school-age population; 3) economic background of students; 4) the plant facilities and equipment; and 5) the school budget.

Goals

Goals are important when deciding how to structure and implement a foodservice program. A district must determine the relative *importance* that will be placed on foodservice at school. Is it to be a necessary evil or is it to serve the nutritional needs of students and be an important contribution to educational goal attainment? Examples of goals include:

- To provide nutritional food that students will enjoy eating.
- To run a financially successful operation, within the funds available, and keep prices reasonable.

The goals for the foodservice program should be established by the board of education with the assistance of the administation needs. Without understanding the school board's philosphy toward the program and nutrition, implementation of the program may be fragmented and inefficient.

Clearly articulated program goals not only help the community understand the school district's philosophy toward nutriton and education, but also help generally with public relations. In fact, one goal of a foodservice program may be to support or interact with other community programs (such as those for senior citizens and day care centers). The result may be community support for the school service program and the school administration.

Type of Management System

There are essentially three configurations for management which will affect the organization and implementation of foodservices within a district. They are: 1) contracting with an outside management company; 2) having the central administration coordinate and administer the program for all schools; and 3) having each school (or clusters of schools) coordinate and administer the program.

In some parts of the country, particularly the northeast, contracting is a growing trend. For example, one large food management company had $75 million in volume in 1985.

Management Company. The advantages and disadvantages of a management company should be considered. If a school district has a well-run program, it does not need the service of a management company. On the other hand, a good management company can provide management and expertise that may not be available locally or relieve the school administration of the problems associated with foodservice delivery.

A foodservice management company generally charges the school district a fee based on the number of meals served, usually between four and five cents per meal. However, some states like New York, have regulations that require a management company to operate under a fixed-fee contract rather than a cents-per-meal contract. Some states require the school district to take the lowest bid, which means the specifications must be well written.

If a school district employs a management company, it is important to have details in writing and a firm understanding of who does what and who pays for what. Also, check with the state supervisor for Child Nutrition Programs to ensure that you understand all state requirements.

Centralized versus Decentralized Management. School districts who manage their own foodservice will probably be faced with the decision of centralized versus decentralized supervision—or how much of the responsibility for the program will lie with the principal? Since most principals do not have the time to run a restaurant, the local foodservice manager, or the school district's supervisor will have much of the responsibility for the day-to-day operation.

The benefits of centralized management relate primarily to efficiency in use of personnel and cost effectiveness. They include:

1. Reducing workload of principals.
2. Increasing expertise by enabling the district to employ someone with training and experience in foodservice mangement as a central supervisor.
3. Due to item 2, provide improved staff training.
4. Reducing duplication of effort by having central office personnel handle regular activities such as menus, state reports and purchasing.
5. Securing lower prices through competitive bid process and volume buying.
6. Helps ensure compliance with state and federal regulations and, thus, prevent loss of federal funds.

Food Systems

The type of food system that will be used may also affect organization of the program. *On-site preparation* is most common among the 89,200 schools in the program. As labor costs increase, more and more school districts are looking at alternatives, since on-site preparation is usually the most expensive to operate.

Satellite foodservice. This refers to a system where food is prepared at one location for serving at another. It began to be popular in the late 1960s when increased funding became available under the Child Nutrition Act. A school receiving prepared food may have a finishing kitchen or merely a serving kitchen. Basically there are three types of satellite systems: 1) *bulk*, ready-to-serve is when the transported hot food is kept hot and the cold foods cold; 2) *cook/chill*, or freeze method is where the food is transported pre-cooked and ready for reconstituting in the oven or kettle (used in Shreveport (LA) School District in the 1970s, but did not really begin replacing the hot bulk method until the 1980s); and 3) *pre-plated* meals are pre-portioned ready-to-serve immediately or, where facilities permit, heated on-site (heating on site is preferred).

The pre-plated lunch may be produced by the school district or purchased from a commercial company. Individual portions are available as well as the T.V.-type dinner. The flexibility of the individual portions has caught on in many areas.

To engage in pre-plating successfully a school district needs a minimum volume of 15,000 to 25,000 meals a day to realize savings. While an extremely effective method of producing a lunch, it requires volume, an assembly-line and automated production to make it work. For the many school districts which built their commissaries in the early 1970s, such as Corpus Christi (TX) School District, Rowland (CA) Unified School District, and Dayton (OH) Public School District, the concept has worked well.

It may not work well where a school community has had an on-site kitchen. Converting an "on site" kitchen school to a satellite operation often meets with community resistance. Adults, including teachers, are usually the most resistant to such changes. Their fears are unfounded if the satellite concept is well planned. As labor costs increase, school districts should consider other alternatives, such as a satellite operation in order to keep from raising the price of lunch.

Bulk satelliting can reduce the cost of producing a lunch from 20 cents to 10 cents. For example, with the case of a small school district, the high school can act as the production kitchen for the junior highs and elementary schools in the area.

A conversion to the cook/chill or freeze method can be made with a small investment in equipment—basically a large kettle, ice machine, sufficient freezer/refrigerator space for storage, and a stand specifically made to hold the bags the food is poured into, hot from the kettle. Ice is used to cool the product quickly for storage in the refrigerator or freezer until used later. The prepared "school-made-soup" (or whatever) can be shipped out to the "finishing kitchen" where it is heated and served. The quality of the finished products should be equal to the status of the food when it was put into the bag for transporting.

In order for savings to be realized from a satellite operation, staffing has to be cut and production has to become an efficient procedure.

A la Carte and Snack Programs

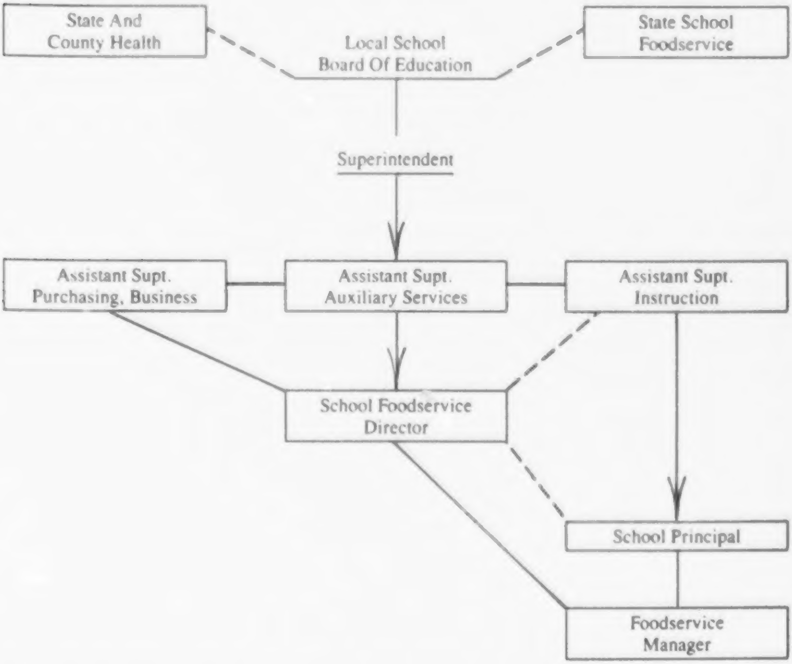
Will foods be sold a la carte and will there be a snack program in addition to the lunch? In many states, this is a local decision. Some states, including Mississippi, have detailed regulations pertaining to what can be sold in competition with the school lunch program. It is advisable to check with the state supervisor of Child Nutrition Programs to determine what state regulations are in effect.

Snack programs sometime replace or supplement a breakfast program, particularly in high schools where not many students qualify for free or reduced-priced meals. If students' participation in the school lunch program is less than 70 percent, it may be desirable to offer high school students a snack option. In addition, the revenue generated from the snacks and seconds being sold a la carte can be used to help subsidize the lunch program. The snack items should be carefully selected, with nutrition considered as an important factor.

Structure and Staffing

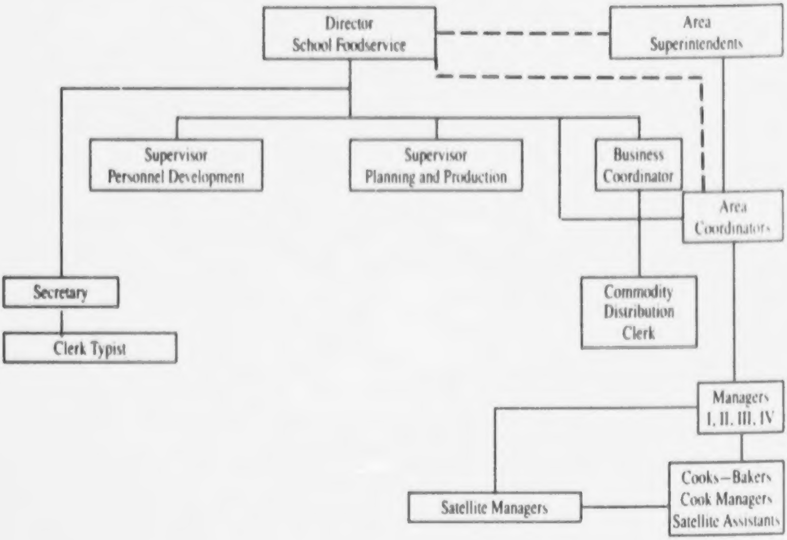
School districts which run their own foodservice programs will differ in structure depending on whether they use a centralized or decentralized format, the type of facilities and equipment and the number and expertise of personnel assigned to the foodservice effort.

The organizational charts appearing in Figures 14:1-3, are illustrative of a variety of well-structured organizational alternatives.


State And County Health
Local School Board Of Education
State School Foodservice
Superintendent
Assistant Supt. Purchasing, Business
Assistant Supt. Auxiliary Services
Assistant Supt. Instruction
School Foodservice Director
School Principal
Foodservice Manager

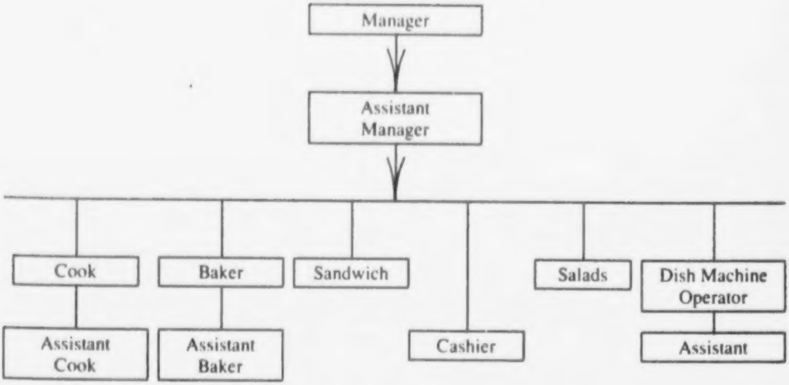
*Source: Van Egmond Pannell, *School Foodservice* (Westport, Ct.: Avi Publishing Co., 1985).

Figure 14:1 Example of Centralized Foodservice Organizational Structure.


Director
School Foodservice
Area
Superintendents
Supervisor
Personnel Development
Supervisor
Planning and Production
Business
Coordinator
Area
Coordinators
Secretary
Clerk Typist
Commodity
Distribution
Clerk
Managers
I, II, III, IV
Satellite Managers
Cooks—Bakers
Cook Managers
Satellite Assistants

Source: (same source as above)

Figure 14:2 Organizational Structure for Large Centralized Foodservice Program


Manager
Assistant Manager
Cook
Baker
Sandwich
Salads
Dish Machine Operator
Assistant Cook
Assistant Baker
Cashier
Assistant

Source: (Same as 14:1 & 14:2)

Figure 14:3 Single Unit Foodservice Organizational Chart for a Large Secondary School with á la Carte Sales.

In addition to organizational structure, staffing depends on expertise and size of school population to be served.

Number of Staff. The number of staff needed is usually based on number needed at serving time. By drawing out a symbolic kitchen/serving area, it may be easier to establish how many people are needed. There are a number of different staffing formulas based on labor hours needed. The one shown in Table 14:2 is fairly typical of what has been established by states and school districts as their standard.

Table 14:2 Staffing Guidelines for School Lunch Program[1]

Number Lunches Served	Meals per Labor Hour	Total Hours
Up to 100	9½	9-11
101-150	10	10-15
151-200	11	15-7
201-250	12	17-20
251-300	13	20-22
301-350	14	22-25
351-400	14	25-29
401-450	14	29-32
451-500	14	32-35
501-550	15	35-36
551-600	15	36-40
601-700	16	40-43
701-800	16	43-50
801 +	18	50 +

[1] These recommendations do not include hours for breakfast, a la carte, or dinner.

Source: D. Van Egmond-Pannell, *School Foodservice* (1985).

After the number of hours and the number of people have been established the next step is dividing the labor hours among the number of people. The meals per labor hour are calculated by dividing the total number of meals served (give an equivalency to a la carte sales, etc.) by the total labor hours at the location. An equivalency formula that may be used is $1.65 in a la carte sales is equal to one lunch. This is based on the premise that the national average cost of producing and serving a lunch was $1.58 in 1985.

Staffing Configuration. The school foodservice director or supervisor for a centralized system should have a nutrition, foodservice and administrative background. Depending on the size of the school district, the staff may consist of several supervisors, specialists, accountants, buyers and clerical people. Two typical organizational charts are presented in Figures 14:1 and 14:2.

At the school level the manager may have assistant managers, heads of departments (salad, cooking, bakery and so on) and a number of staff people (See Figure 14:3). This should be decided based on number of serving lines and type preparation.

The American School Food Service Association has developed position descriptions and qualifications for foodservice personnel. See Appendix A of this chapter for a description of these. Tables 14:3 and 14:4 offer staffing guides for an elementary school and secondary school.

Table 14:3 Staffing Guide for Elementary School Foodservice Serving 400 Lunches on a Line

(Lunch Served from 11:00-12:45)

Position	Arrival/ Departure	Total Hours**	Assignment At Serving Time
Manager	8:00-3:00*	6½	Supervision Back Up Serving Line
Cook	8:00-2:30*	6	Cooking
Baker	8:30-2:00*	5	Serving
Salad	9:00-2:30*	5	Backing Serving Line
Staff	10:30-2:00	3	Serving
Cashier	10:00-2:00*	3½	Cashier
		29 (staffed at 14 meals per labor hour using disposables)	
Dish Machine Operator	10:30-2:00	3	Dishwasher
		32 (staffed at 13 meals per labor hour using dish machine)	

*Includes 30 minutes for lunch (on their own time).

**Hours paid.

Table 14:4 Staffing Guide for High School Foodservice Serving 1500 on 3 Serving Lines, Salad Bar and Snack Bar

(Lunch Shifts: 11:00, 11:30, 12:00, 12:30)

Position	Arrival/ Departure*	Total Hours**	At Serving Time
Manager	7:30-3:00	7	Supervision of 3 Serving Lines and Kitchen
Asst/Manager	7:30-3:00	7	Supervision of Snack Bar and Salad (backing)
Cook	8:00-2:30	6	Cooking
Asst/Cook	8:00-2:30	6	Cooking and Backing Line 1
Baker	8:00-2:00	5½	Backing Line 1
Asst/Baker	8:30-2:00	5	Backing Line 3
Salad	8:00-2:00	5½	Backing Salad Bar
Asst/Salad	9:00-2:00	4½	Backing Lines for Fruits and Salads
Snack Bar	8:30-2:00	5	Serving Snack Bar
Asst/Snack Bar	9:00-1:30	4	Serving Snack Bar
4 Cashiers	10:00-2:00	15 (3½@)	Cashiering Line 1, 2, 3 and Salad Bar
Head Cashiers	9:30-2:30	4½	Cashiering/Head
3 Staff	9:30-2:00	12 (3 each)	Serving Lines 1, 2, and 3
		87 hours (staffed at 17 meals per labor hour using disposables)	
2 Staff	10:30-2:30	7	Dish Machine Operators
		94 (staffed at 16 meals per labor hour using dish machine)	

*Includes 30 minutes for lunch (on their own time).
** Hours paid.

In the two staffing examples salads, fruits and desserts are portioned before lunch. In the high school situation a lot of self service is being used. With the use of convenience foods the staffing in the high school could be figured at eighteen meals per labor hour and sixteen in the elementary. If all breads are being baked and "unprocessed" commodities are being used and products are being made "from scratch," the staffing will have to be increased significantly, thus, reducing the meals per labor hour.

Administration

The management and administration of a school foodservice program is similar to any other program. Aside from those governmental requirements detailed earlier in this chapter, areas of foodservice management include: personnel, purchasing plant and equipment, and finance.

Key to the adminstration of the program is the designation of the "school food authority" or SFA, that person who is legally authorized by the district to enter into a state or federal agreement or behalf of a school or district. Who fills this position depends typically on the organizational structure of the program.

Sitting Lunch Periods

Also affecting program administration is the duration of the lunch period. This decision is based on such factors as service population, number of staff and plant layout and facilities.

Studies have shown most students can eat without rushing in twenty minutes after receiving the food. The thirty-minute lunch period is adequate if no student has to stand in line more than ten minutes. An average cafeteria line with trained servers and cashiers can expect to serve ten meals per minute. Therefore, one serving line should be able to move 100 students through in ten minutes.

Students usually cause trouble or find alternatives to standing in line when they have to wait more than ten minutes to be served. The number of students the dining room will seat and the number of serving lines should be considerd when setting lunch periods.

If the students are not moving through the line at the rate of ten per minute, the problems may be one or more of the following:

1. Running out of food and students are having to wait for food;
2. Line set up is not in a logical, flowing manner;
3. Employees are poorly organized;
4. More self-service items are needed; or
5. Procedures for collecting money and tickets are too time consuming.

If a problem does exist, observe the line flow to determine where the slow down is and then determine if the slow down problem can be resolved.

Personnel Management

The primary areas relating to the management of foodservice personnel include:

- The development of clearly written job descriptions.
- A clear communication of division of responsibilities.

- Regular, periodic evaluation.
- On-going staff training.
- Determination of payscales and fringe benefits.
- Development of work schedules.

Appendix A presents a wide range of brief job descriptions. These will necessarily have to be adapted to the particular organizational situation, level of expertise and staff configuration. It is important to present a written job description to an employee at the point of hiring to ensure that the employee understands his or her work responsibilities.

Periodic training to improve or upgrade job skills or during times of organizational change should be part of the personnel management plan. In addition, evaluations should be done within at least ninety days after employment and again at the end of the first year of employment. From thereon the evaluation form used by the San Diego (CA) City Schools appears in Appendix B. It includes detailed directions.

Payscales for staff vary from a low, below minimum wage, to a high of $10.00-$14.00 per hour. Payscales among managers have as much variance. Factors to be considered when establishing the payscale are what other nearby school districts are paying, what commercial foodservices are paying, the local unemployment rates, qualification requirements and job description, and, in the case of unionization, the nature of a union contract.

Fringe benefits are becoming a major expense for schools. In many school districts costs of insurances, social security, and retirement pensions can add as much as 25 to 30 percent to the labor costs. To be considered are:

1. Will an employee meal be a fringe benefit?
2. How many sick days with pay will be provided?
3. How many, if any, annual leave days with pay will be provided?
4. Will uniforms be furnished?
5. Will laundry of those uniforms be furnished?
6. Will training and staff development be provided at no cost?

The School Foodservice Handbook, A Guide for School Administrators, published by ASBO, provides more detail on staffing and personnel related matters.

Purchasing

Purchasing of food, supplies and large and small equipment means spending a large percentage of the foodservice revenue available. Food often takes 40-50 percent of the revenue, with labor consuming a large amount. Supplies, depending on how many disposables are used, will run between 3 and 12 percent. Large and small equipment will generally take 4-5 percent, if replacement and additional purchases are made out of school foodservice funds.

Since food takes up such a large percentage of the budget, there is more information available on that subject. Since federal, state and local "public funds" are involved, the purchasing practices of all school foodservice buyers should be reviewed to ensure that the procedures used are ethical and that the desired products are obtained at fair prices.

Bid Buying. Bid buying is the written process of requesting competitive prices on products to be purchased. Detailed specifications that describe each product to be purchased are needed. This helps to ensure that the product bid is the quality product wanted. Usually the company that is low bidder of the product(s) specified is awarded the bid. Some claim that "low bid means poor quality." That does not have to be the case. If good specifications are written and the bids presented are examined carefully to determine if the product bid is the quality desired and specified, the award made to the lowest bidder is likely to result in the purchase of a good quality product.

The bid process may take different forms. For smaller school districts the *open market* price quotes from two to four companies may be the most effective. The quotes are compared and orders are placed with the company with the lowest quote.

The alternative *informal bid* has specifications and is based on a written quote but without the format of a bid contract. As a result, either party may renege on the agreement. A *formal bidding* system includes written specifications for all products. A price quotation is given in writing and the contract is a binding one.

Collective purchasing. This system is especially useful to enhance buying power when volume is small. Two or more schools and/or other agencies pool their needs and purchase under one contract. Prices are usually better as more vendors, some of whom would not be interested otherwise, find it worth taking the time to submit a bid. Montana and Colorado school districts who have used collective purchasing have saved as much as 40 percent over what they previously paid.

It may be wise to start collective purchasing with a few food items, such as staples, canned and packaged foods. When problems are worked out and a "code of ethics" or operating procedures is established, new items can be added to the collective purchasing effort.

Specifications. Specifications should contain the following basic information:

1. Name of the product (generic, not brand, e.g. Gelatin, not Jello).
2. Federal grade, brand, or other quality designation.
3. Unit of purchase (pound, case, bag, cartons, etc.).
4. Geographical area of production (such as "Blue Lake" beans or domestically grown pineapple).
5. Variety, type, style, size, etc.
6. Condition of merchandise upon receipt.
7. Quantity to be purchased.

Purchasing for school foodservice should be done with a high standard of ethics established by the administration or the school board, not by divisional managers. School foodservice directors, supervisors, managers and purchasing agents should be informed of those standards. At the base of the standards should be obtaining the best price for the best product. If the quality obtained is not what is desirable, committees can be organized to determine suitable foodservice products.

Ordering. Orders are usually placed by the manager. If program goals include maintaining a low inventory and always serving what is on the menu, ordering is probably one of the hardest jobs for the manager. In addition, each order must be of sufficient quantity to make it cost effective for the company with the bid to deliver.

Plant and Equipment

To some extent the layout of the dining room and kitchen will affect the staff configuration and the organization of the foodservice operation. In any event, it will contribute to making serving food and eating it more or less enjoyable.

The current trend is toward the less "institutional" more aesthetic look. Varied table sizes, comfortable type seats, room dividers, good accoustics, bright colors, adequate lighting and pleasing decor help to achieve a pleasant dining atmosphere. Good storage facilities—both dry and refrigerated—help keep foods safe, wholesome and appetizing. Careful consideration must be given to providing the needed storage facilities to insure that all foods, whether USDA donated or locally purchased, will have adequate storage facilities to maintain their high quality and nutritive value until consumed. Temperature, humidity, ventilation, rodents and insects must be controlled *throughout the storage areas.* A guide to storage types is reflected in Table 14:5.

Table 14:5 Storage For Food

Type	Temperture	Use	Characteristics
Dry-Cool	50°-70°	Semi-perishable and Staple Items	Well Lighted Dry Well Ventilated Easy to Clean Well Constructed Shelves Floor Racks Thermometer
Dry		Detergents Paper Goods	Same as above
Refrigerated Reach-in or Walk-in	32°-40°	Perishables Semi-Perishable Raw and Cooked Foods for Short Periods of Time	Thermometer Adjustable Shelves
Frozen Food Storage	0°F. or below	Frozen Foods	Thermometer Shelves or Racks Properly Wrapped Packages

Source: Oklahoma Handbook for Child Nutrition.

Anyone planning to build or remodel their storage should request USDA publication, *Food Storage Guide for Schools and Institutions*, PA-403.

Equipment replacement will be a major expense facing school districts within the next five years since so many new schools were built during the '60s to meet the growing enrollment needs. Much of the commercial equipment purchased in the '60s has a twenty-five to thirty-year life expectancy. The timing will be perfect in some respects. Rising labor costs will increase the demand for automated equipment. Automation has begun to flourish in the last few years, since the computer chip was introduced in commercial kitchen equipment.

Financial Management

Financial management of the foodservice operation is similar to that of other divisions with respect to concern for securing funds, establishing a budget, cost-effectiveness and accountability and is unique in that it must establish prices and actually "earns" revenue. It must also be concerned with federal and state reimbursement procedures.

Funding and Reimbursement. If the school district has a contract with the state to participate in the National School Lunch and Child Nutrition Programs, it receives funding based on the number of meals served. Table 14:6 shows the reimbursement levels for 1986. Federal reimbursement increases yearly to offset increases in the cost-of-living unless Congress mandates changes in the escalating clause.

School lunch funding from the federal government is based on actual participation. Claims are submitted for reimbursement by local school food authority. Federal funds and commodities are distributed to state education agencies for distribution to the school food authorities at the local level.

States have to provide funding based on the federal matching formula. Some states like Louisiana and Oklahoma provide more than the minimum matching. This may change as state budgets become tight. Local governments frequently subsidize the program either directly or indirectly.

Table 14:6 Federal Reimbursement Levels for 1986-87

	LUNCH	BREAKFAST
Paying Child	$ .1312	$ .103
Free Child	.1312 1.2397	.7163
Reduced Child	.1312 .8380	.4158
Commodity Entitlement	.12	-0-
Free Severe Needy Child	-0-	.5186
Reduced Severe Needy Child	-0-	.8590

Budgeting. Part of any financial management involves the development of a budget. The school foodservice budget is much different than most in the school district. It is based on anticipated income, and it will probably have to be adjusted several times during the year. The income and the expenditures are impossible to project exactly, since the income is based on number served. Also, the expenses are based on number served and amount of food used.

In spite of the inexactness, the budget is very useful. Purchase of large and small equipment can usually be planned for and it helps prevent overspending.

Cost Accounting. An accounting system should track costs in a minimum of four groupings: food, supplies, equipment and labor. Invoices and a signed delivery ticket should support all purchases.

To determine the cost of food for the month or week use the following formulas as presented in Table 14:7:

Table 14:7 Food Costs for the Month

A. Beginning Purchased Food Inventory First of Month $____________________
B. Food Purchases during Month $____________________
C. Total A & B $____________________
D. Ending Purchased Food Inventory for Month $____________________
E. Total Purchased Food Cost for Month (- D from C) $ ____________________
F. Beginning USDA Commodity Food Inventory for Month $ ____________________
G. Commodities Received during Month $ ____________________
H. Total F & G $ ____________________
I. Ending Commodity Inventory for Month & ____________________
J. Total Commodity Food Cost for Month (- I from H) $ ____________________
K. Total Food Cost for Month
Add total on lines E ($____________________)
and J ($____________________) = $____________________

Each month a physical inventory should be taken of foods and supplies on hand. USDA regulations require that the purchased foods be inventoried separate from the commodities. The state education agencies usually provide an inventory form, similar to the one in Table 14:8.

Table 14:8 Sample Physical Inventory Control Form

PHYSICAL INVENTORY

SCHOOL ____________________

DAY ____________________ DATE: ____________________

Item and Brand	Unit Size	Count	Unit Cost	Total Cost	Item and Brand	Unit Size	Count	Unit Cost	Total Cost
Bacon	lb	1	.527	.527	Eggs	doz	3	.71	2.13
Ham	lb	15 oz	1.80	1.69					

Pricing. The prices charged students and adults for the complete lunch and breakfast meals are usually established by the school board based on the recommendations of the superintendent. The superintendent will base the recommendations on the advice of the foodservices director and business manager. Taken into consideration when establishing prices are those costs directly attributable to the foodservice operation. They may include: all or a part of the food, labor, employee benefits, repairs, replacement of equipment, cleaning and paper supplies, telephone, travel for banking and training meetings and administrative, supervisory and clerical salaries.

Meal prices charged adults should cover the costs of the meal, including preparation and service. No financial assistance is received from the government or state for adult meals. Only student meals are subsidized by federal and state funds.

To some extent, pricing is a function of marketing—as it is with most businesses. Following the 1981 cut in federal funding, school districts generally raised the prices of their meals which resulted in a loss of participation in foodservice programs. The threat of cuts will most likely continue until the federal budget is balanced.

Credit. To offer credit to students and adults or not is a local decision. However, federal and state auditors discourage the practice. The procedure described is used in Fairfax County (VA) Public Schools, where the foodservice is not allowed to have charges.

Since each school's foodservice is on a cash and federal free/reduced-price meal basis, the accounting system has no provision for handling charges. To ensure that students in elementary schools do not go without lunch when they lose or otherwise do not have money, a procedure is set up for handling charges. The foodservice manager consults with the principal and establishes a system whereby the school foodservice can be reimbursed for meals served to students without money. This does not pertain to students who are authorized to receive free meals.

The foodservice manager issues a charge slip to be signed by the student and the manager. Each day the manager exchanges the charge slips for cash from the principal's office, permitting the manager to record the meal served on the day served. Collections are completed through the principal's office. Charges are not allowed to accumulate. Some cases of repeated charges may need investigation by a visiting teacher or other authorized person to establish the possible eligibility for free or reduced-price meals.

Free Meals—Adults. Foodservice employees are the *only* adults that are authorized to receive a meal free unless the school district has decided to pay for other adult meals as a fringe benefit. All other adults, including the principal, instructional personnel, custodial personnel and guests, should pay daily for meals and food received through the foodservice operation. Adults may make payments in cash or purchase meal tickets.

Conclusion

The challenges associated with running a school foodservice program are many and differ widely depending on specific circumstances. Ensuring compliance with state and federal regulations is certainly a major part. Cost control and accounting are also extremely important activities, as they are tied directly to state and federal funding through the reimbursement and audit processes.

Still another challenge stems from viewing the school foodservice operation as a kind of business. As such, those involved with its management must be concerned with client tastes and preferences, pricing and "packaging."

Finally, the school foodservice operation should have as its goal to contribute to the educational goals of the school or district by providing nutritious meals to the students.

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Appendix A
Job Categories for a School Food Service Program

	Education	Experience	Classification
School Food Service Director Plans, organizes, directs, administers and assumes responsibilities of the food service program in a school system according to Board of Education policies. Recommends policies, procedures and directions. Serves as consultant on nutrition education and food services. Responsible to Superintendent of Schools or School Business Administrator.	Bachelor's Degree from accredited college with emphasis in food, nutrition, institution administration, education or related fields. Advanced degree recommended. ASFSA membership recommended.	Diversified experience in school food service administration with progressively more responsible positions.	System level administrative position. Recommended for all systems.
School Food Service Assistant Director Assists in planning, organizing and implementing the food service program in a school system according to Board of Education policies. Serves as resource consultant on nutrition education and food services. Responsible to School Food Service Director.	Bachelor's Degree from accredited college with emphasis in food, nutrition, institution administration, education or related fields. Advanced degree recommended. ASFSA membership recommended.	Diversified experience in school food service administration with progressively more responsible positions.	System-level administrative position. Recommended as needed depending on size and requirements of school system.
School Food Service Specialist Serves as staff assistant to school food service director. Develops program's educational aspects for better health and nutrition. Supervises food service activities of more than one school. Responsible to School Food Service Director.	Associate Degree in Food Service recommended. Bachelor's Degree with emphasis in food, nutrition institution administration or education desirable. ASFSA membership recommended.	Diversified experience in food service supervision and management with training in nutrition education.	System-level position. Recommended as needed, depending on size and requirements of system.
School Food Service Manager Manages food service program in individual school according to system policies, procedures and methods. Cooperates with principal and teachers to promote program's educational values. Supervises and instructs food service personnel. Maintains high standards of food preparation and service with emphasis on appetizing appeal, maximum nutritive value and flavor. Maintains high standards of sanitation and safety, records of cash, food, supplies, and equipment. Responsible to Food Service Director or Specialist. Because of the wide variation in degree of responsibility on the managerial level, a grading method is recommended on a systemwide basis. Such grading plan would include such factors as: number and type of meals served daily, percent participation, number of employees and nature of responsibilities.	High School Diploma or equivalent recommended. Specialized education and training in school food service management recommended. ASFSA membership recommended.	Diversified experience in food service production and management with progressively more responsible positions.	School-level position. Recommended for all schools.

School Food Service Manager-Cook In some school systems the responsibilities of both manager and cook are incorporated into one position—Manager-Cook. This person assumes the management responsibilities of the School Food Service Manager and performs food preparation and service activities according to school system policies.	High School Diploma or equivalent recommended. Specialized education and training in food service production and management recommended. ASFSA membership recommended.	Diversified experience in school food service production and management with progressively more responsible positions.	School-level position. Recommended as needed depending on size and requirements of school.
School Food Service Assistants· In this category are all persons in food production and service who perform such activities as: preparing, cooking, and serving food, cashiering, washing and sanitizing food service utensils, and assisting with other food service activities required for the program's operation. Responsible to School Food Service Manager or Manager-Cook. If needed, a school system may further classify Food Service Assistants according to job function, skills and training required. Such a classification may be:			
Grade III—Skilled food production and service employed with specialized training and/or experience.	High School Diploma or equivalent desirable. Must have ability to follow oral and written instructions. Facility in arithmetic. ASFSA membership recommended.	Two years of paid experience in quantity food preparation and service desirable. Willingness to improve skills through specialized training and experience in quantity preparation and service.	School-level position. Recommended according to needs.
Grade II—Semi-skilled food production and service employees.	High School education or equivalent desirable. Must have ability to follow oral and written instructions. Facility in arithmetic. ASFSA membership recommended.	One year of paid experience in quantity food preparation and service desirable. Willingness to improve skills through specialized training and experience in quantity food preparation and service.	School-level position. Recommended according to needs.
Grade I—All other food production and service employees who assist in the program's operation.	8th grade education desirable. Must have ability to follow oral and written instructions. ASFA membership recommended.	Willingness to improve skills through specialized training and experience in quantity food preparation and service.	School-level position. Recommended according to needs.

Appendix B
Sample Performance Evaluation Report

Use ink or typewriter for final markings

Employee Name	Social Security No.	Cost Center Name	Cost Center No.
Position Title	Employee Status	If Unscheduled Report, check here: ☐	DUE DATE

SECTION A

Immediate supervisor must check each category in appropriate column.

Unsatisfactory	Requires Improvement	Meets Standards	FACTOR CHECK LIST
		X	1. *Observance of Work Hours:* Dependable and punctual attendance.
		X	2. *Productivity/Quality of Work:* Completes an acceptable level of quality work.
		X	3. *Job Skill Level:* Demonstrates required skills.
		X	4. *Communication Skills:* Communicates well orally and in writing: effectively carries out verbal and written instructions.
		X	5. *Working Relationships:* Works with and relates to others effectively.
		X	6. *Adaptability/Flexibility:* Accepts change; works effectively under stress; responds to varying needs.
		X	7. *Observance of Safety/Health Standards:* Demonstrates knowledge of district safety/health/sanitary procedures.

SECTION B

Superior performance in any category should be described in detail. Check marks in "Unsatisfactory" or "Requires Improvement" must be supported with documentation.

Since September you have shown an active interest in acquiring new job skills. You have taken some positive steps to accomplish this by accepting extra hours. You also have begun learning the operation of the cash register and filling out the daily accounting reports that are part of the job. You are presently learning the breakfast routine at L.V. Annex. By accepting change in your assignment hours you have been able to assist in food preparation at Linda Vista under the guidance of the Senior Food Service Worker and the Area Manager.

ATTACHMENTS ADDED YES ☐ NO ☐

SECTION C

Employee was counseled on noted deficiencies: (Dates) ____________ ____________ ____________

SUMMARY EVALUATION: (Check one) Unsatisfactory ☐ Requires Improvement ☐ Meets Standards ☐

IF PROBATIONARY: I do not ☐ I do ☐ RECOMMEND PERMANENT STATUS

SECTION D

Goals and Objectives:

Continue to accept new learning experiences when offered. Watch for information on various food related courses offered at local junior colleges and through food service department and City Schools Inservice training classes. These courses help provide a better understanding of our goals and aims within our own food service department.

RATER: REVIEWER:

Signature	Date	Signature	Date

My supervisor has discussed this report with me and given me a copy of this evaluation report. I understand my signature does not necessarily indicate agreement.

Comments:

ATTACHMENTS ADDED YES ☐ NO ☐ ____________ Signature ____________ Date

Instructions For Use of the Performance Evaluation Report Form

The Performance Evaluation Report Form is designed to help those being evaluated to achieve and maintain high levels of work performance and behavior. The form can be used by supervisors as an effective counseling device and as a means for establishing performance goals. Please see the *Performance Evaluation Guide for Classified Employees* for detailed instructions.

General:

1. After marking very lightly with pencil each factor in Section A, the rater shall review the report with her/his principal or department head, if any. Markings and comments shall then by typed or inked in. Either the rater or reviewer (or both) shall then review the rating with the employee in a private interview. All signatures shall be in ink. Changes and corrections shall be initialed by the employee.
2. If space for comments is inadequate, attachments (either typewritten or in ink) may be included, but each must be signed and bear the same date as the Performance Evaluation Report Form.
3. Due dates shall be observed and are particularly important for final probationary reports. Filing dates are flexible; both the first and final reports may be filed at any time between their receipt and the printed due date.
4. All probationers (either new-hire or promotional) shall be evaluated no later than the end of their third full month of probationary service and again after nine full months, but not later than the end of the eleventh full month of such service. Probationers may be separated (or demoted, if permanent in a lesser class) at any time such action is deemed necessary by the principal or department head through use of either a scheduled or unscheduled performance evaluation report.
5. All permanent employees (who have completed at least five months of service in permanent status) shall be evaluated every two years as of the printed due date. Permanent employees may be separated or demoted in the same manner as probationary employees, provided that all pertinent merit system rules and district procedures are observed.
6. Unscheduled reports may be filed at any time to record progress achieved or specific work performance deficiences.
7. All performance evaluation reports in an employee's personnel department file are subject to review by principals or department heads whenever the employee is certified for transfer or promotion.

Section A: Check ( ) one column for each factor. N/A may be used when a factor is considered "not applicable" to a particular job. Each check mark in Unsatisfactory or Requires Improvement must have a specific explanation in Section B.

Section B: Describe outstanding qualities and superior performance. Give specific reasons for check marks in Unsatisfactory or Requires Improvement columns. Record here any other specific reasons why the employee should not be recommended for permanent status, or—if the employee is already permanent—any specific reasons for required improvement. Attachments, if included, should be indicated in space provided.

Section C: Enter the dates employee was counseled on noted deficiencies. SUMMARY EVALUATION: Check the appropriate box to indicate overall performance here, taking into account all factors and total performance for the full period of service being evaluated.

> **Unsatisfactory:** Performance is clearly inadequate in one or more critical factors as explained or documented in Section B. Employee has demonstrated an inability or unwillingness to improve or to meet standards. Performance is not acceptable for position held. (Note: Such summary evaluation bars the employee from promotional examinations for one year.)
>
> **Requires Improvement:** Total performance periodically or regularly falls short of normal standards. Specific deficiencies should be noted in Section B. This evaluation indicates the supervisor's belief that the employee can and will make the necessary improvements.
>
> **Meets Standards:** Indicates consistently competent performance meeting or exceeding standards in all critical factors for the position. Most employees will fall in this category. If margin is narrow and standards are barely met, explain in Section B.
>
> **If Probationary:** Make a recommendation regarding permanent status.

Section D: Record progress or improvements in performance resulting from employee's efforts to reach previously set goals. Record agreed-upon or prescribed performance goals for the next evaluation period.

Signatures: Both the rater and the employee shall date and sign the report. The employee's signature indicates that the conference has been held and that she/he has had an opportunity to read the report. If she/he refused to sign for any reason, explain that disagreement. Further refusal to sign shall be recorded in the report. Attachments, if included, should be indicated in space provided.

Appeal: Evaluation reports express the judgment and opinions of supervisor authority, and as such, are not subject to appeal under rules of the merit system unless there has been a resultant action taken to suspend, demote, or dismiss a permanent employee.

15

Public School Transportation: State Aid and Current Issues

Patricia Anthony and Deborah Inman

Antecedent to the Present System

Public school transportation has been a part of the American school scene since earliest times. During the seventeenth and eighteenth centuries, school transportation was furnished privately; family-owned horses and wagons were the main purveyors of transportation to and from school.[1]

By the latter half of the nineteenth century, the combined effect of two educational phenomena served to shift the responsibility for pupil transportation away from the parents and onto the shoulders of the local school district. Enactment of compulsory attendence laws boosted school enrollment figures, creating the need for additional facilities. During the early stages of compulsory education, one-room schoolhouses dotted the countryside as an answer to the educational needs of rural students. It soon became apparent that it was not financially feasible, nor educationally practical, to build a school within walking distance of every child. This recognition provided the impetus for a second educational phenomenon, consolidation. Featherston and Culp cited two reasons for the consolidation movement:

> This was caused in part by the fact that the rural population . . . began to decline. It was owing even more to the fact that the school program was changing in character, so that offering in the small school the kind of education which most parents wanted for their children was no longer economically feasible.[2]

At its peak, the consolidation movement was responsible for 20,000 small schools either being closed or converted into larger, more centralized facilities.[3] Increased awareness of the importance of secondary education added momentum to the consolidation movement and intensified the need for publicly funded school transportation.[4] With the construction of large comprehensive high schools came the need to transport students to the facilities from outlying rural areas.

Two reasons contributing to the acceptance of tax-supported pupil transportation programs were advanced by Johns: 1) "The good business sense of the American people," i.e., what many could do alone inefficiently, the community could do as a whole more efficiently; and 2) the faith of the American farmer that his children would be afforded the same educational opportunity as their wealthier urban counterparts.[5]

Early Legislation

In 1869, the first state law authorizing the use of local tax moneys for public school transportation was passed in Massachusetts.[6] Other states soon followed, enacting their own statutes. By 1900, eighteen states had passed laws which allocated public funds for school transportation, and "$14,514,544 was being spent to transport 356,401 pupils."[7] Twenty-mile bus routes, common in many states today, were impossible in the late nineteenth and early twentieth centuries.[8] The automobile had the effect of increasing "from twenty-five to forty-five times the possible area that may be served by one school."[9]

The rapid growth of the automobile industry (during the 1920s, 17,292,838 vehicles were registered) created a demand for better road surfaces. Estimates provided by the United States Bureau of Public Roads reveal that "of the approximately 2 million miles of rural highways in use in 1890 only 100,000 miles had any kind of all-weather surface, which was gravel or crushed stone or less durable materials."[10] Improved road conditions escalated the growth of school transportation programs. In 1922, there existed 387,000 miles of all-weather surface rural roads. During the same year, 594,000 students were transported by local school districts. By 1960, the number of all-weather surface roads had risen to 2,557,000 and the number of students provided transportation climbed to 12,700,989.[11]

The increasing demand for pupil transportation prompted administrative interest in developing regulations and uniformity. Minimum distances between school and a student's residence were set, so as to determine which pupils needed to be transported. Excessive mileage was decreased by more efficient routing of buses. Regulations governing maintenance and operations took effect.

In accordance with the increased use of motorized vehicles for transporting children, national uniformity measures involving safety and school bus standards were introduced at a 1939 national conference. Subsequent conferences resulted in the revision and strengthening of such standards. Uniformity in state traffic laws was achieved by the late 1940s.[12]

Expanded Role of School Transportation

In the latter decades of the twentieth century, public school transportation has taken on new dimensions. As one method for achieving racial desegregation, intradistrict busing of both black and white students was augmented during the early 1970s. In the landmark decision *Swann v. Charlotte-Mecklenburg*, Chief Justice Burger declared, "desegregation plans cannot be limited to the walk-in school."[14] This Supreme Court ruling gave birth to a new social phenomenon, "busing," by which the common public school bus became a tool against segregation.

School buses have also been used to transport students to and from athletic events, as well as field trips and other scholastic events. Most recently, school buses have been adapted or special school buses ordered to enable handicapped students to attend educational programs in accordance with federal legislation. The assumption of this multi-dimensional role by public school transportation has impacted greatly the resources and operations of local district programs, making mandatory the reassessment of existing state pupil transportation funding models and the refinement of local management procedures.

Escalation of Costs

The multi-dimensional role of pupil transportation, coupled with an increase in number of students transported, has contributed to a continual rise in costs. In 1930, total expenditures for public school transportation in the United States stood at $54,823,000.[15] Current figures show that fifty-eight percent of all elementary and secondary students nationwide are transported at the cost of $3.3 billion.[16] While the overall cost of public school transportation has increased, state allocations to school districts have not always kept pace. Florida is a case in point. For the 1973-74 school year, state monies funded 61 percent of all Florida public school transportation at a cost of $21,050,092. By the 1983-84 school year, district pupil transportation costs had risen to $185,587,784 and state appropriations, although approximately four times the amount allocated ten years earlier, funded only forty-five percent of total pupil transportation costs state wide.[17] Such disparities between state allocation and actual district costs emphasize the need for: 1) adoption of fiscally sound state level funding models, and 2) increased emphasis upon efficiently operated local pupil transportation programs.

State Pupil Transportation Funding Models

Every state, with the exception of New Hampshire, allocates state moneys for local district pupil transportation programs. Individualized funding models vary from state to state, but generally can be categorized according to one of four types: 1) actual or approved district expenditures, 2) budget models, 3) density formulas or 4) fixed unit cost formulas.[18]

Table 15:1 outlines the funding models currently utilized by each of the states. In the following section, each of the four funding models is discussed and examples of salient features are drawn from states which have adopted a specific type of funding model.

Table 15:1 State Pupil Transportation Funding Model

State	Actual/Approval District Expenditures	Budget Models	Density Formulas	Fixed Unit Cost Formulas
Alabama			x	
Alaska		x		
Arizona				x
Arkansas			x	
California	x			
Colorado				x
Connecticut	x			
Delaware		x		
Florida			x	
Georgia		x		
Hawaii[a]				
Idaho	x			
Illinois	x			
Indiana			x	
Iowa				x
Kansas			x	
Kentucky			x	
Louisiana		x		
Maine	x			
Maryland		x		
Massachusetts	x			
Michigan	x			
Minnesota			x	
Mississippi			x	
Missouri			x	
Montana			x	
Nebraska			x	
Nevada	x			
New Hampshire[b]				
New Jersey	x			
New Mexico		x		
New York	x			
North Carolina		x		
North Dakota				x
Ohio				x
Oklahoma			x	
Oregon	x			
Pennsylvania	x			
Rhode Island	x			
South Carolina[a]				
South Dakota	x			
Tennessee				x
Texas			x	
Utah			x	
Vermont	x			
Virginia				x
Washington				x
West Virginia	x			
Wisconsin				x
Wyoming	x			

[a] Pupil Transportation program owned and operated by the state

[b] No state pupil transportation funding model

Source: Thomas Melcher, "State Pupil Transporation Programs," in *Perspectives in State School Support Programs*, eds. K. Forbis Jordan & Nelda Cambron-McCabe (Cambridge, Massachusetts: Ballinger, 1981).

Actual or Approved District Expenditures

Seventeen states reimburse local school districts for actual or approved expenditures.[19] The percentage of local district costs reimbursed by the states varies, as do the criteria for reimbursement. Both New York and New Jersey reimburse ninety percent of approved local district cost; however, New Jersey bases its funding upon the cost of approved bus routes, while New York categorically funds ninety percent of approved costs through its basic state school finance program. Nevada and Idaho also reimburse a specific percentage of approved pupil transportation costs (eighty-five percent) through their state foundation programs.

Two states reimburse a percentage of actual costs, rather than approved costs.[20] In Wyoming, seventy-five percent of actual pupil transportation costs are reimbursed through the state foundation program; while West Virginia reimburses local school districts for eighty percent of operating costs and provides additional funds for bus driver salaries. A bus depreciation allowance is also included in the overall pupil transportation funding.

In several states, local district reimbursement is provided by deducting a percentage from the total actual or approved costs.[21] Prior year expenditures are used as the basis for reimbursing costs in California and Maine. In California, where a state-wide average cost for operating a bus per day has been determined, there are sixteen different bus classifications based upon: 1) bus capacity and 2) the numbers of hours in operation. To this average cost for operation of a specific bus, twenty-five percent is added, resulting in a local district's approved expenditures. These total expenditures for the prior year, minus a qualifying amount, become a local district's reimbursement.[22] In Maine, on the other hand, the second prior year is utilized as the basis for reimbursement. One hundred percent of these second prior year expenses are paid by state allocation.

Both Massachusetts and Illinois reimburse 100 percent of pupil transportation costs, less a qualifying amount.[23] Massachusetts deducts five dollars per transported student, while Illinois deducts whichever is greater—sixteen dollars or a qualifying amount.

Connecticut, Rhode Island and Vermont fund pupil transportation programs through the state-percentage-equalizing plan.[24] By funding their transportation programs through the state plans, local districts in Rhode Island and Vermont are allocated moneys inversely, according to district wealth per student. In Connecticut, districts are reimbursed for twenty to sixty percent of their transportation costs according to district wealth.

Budget Models

Detailed budget models are used by seven states to fund approved district pupil transportation costs.[25] With this type of model, the state analyzes the costs involved in operating individual pupil transportation programs, with regard to such items as bus driver salaries, buses and maintenance, and then sets fixed reimbursement levels for these costs. Any district which incurs higher expenses than state approved costs must make up the difference with local funds.

An example of the budget approach to funding pupil transportation is the state of Georgia. The costs for driver salaries, bus insurance, vehicle replacement, operating expenditures and fuel price increases are determined for each district, then appropriate levels of state reimbursement for each of these expenses are set.

Density Formulas

Density formulas are utilized by twelve states in funding district pupil transportation programs.[26] An additional state, Minnesota, includes area density as one of the factors used to determine its state allocations for pupil transportation.

Density formulas are based on either area or linear density and provide an adjustment of the costs incurred by a school district due to sparsity. Area density is calculated by dividing the number of students transported by the square mile area of the district, while linear density is determined by dividing the number of pupils transported by the number of bus route miles.

An Area Density Model. In Kentucky, the relationship between area density and cost is used to ascertain the appropriate level of state funding. First, mileage of areas not served is subtracted from the school district's total square mileage. Average daily attendance is then determined, as is density per square mile. Cost per pupil transported is determined by adding all transportation costs involved, and then divided by the number of students transported and the number of days.[27]

A curve of best fit is attained by plotting costs per pupil per day against density per square mile. The point of intersection of these two variables determines individual district allocations based upon a district's standing within one of nine density categories. These categories were constructed in accordance with state statute as a method to depict "the average costs of transportation for districts having similar density."[28] Density categories range from a group encompassing sparsely populated districts with an average density of 3.4, to one which includes densely populated districts averaging 47.8 students per square mile.[29]

A Linear Density Model. Linear density is the basis of the pupil transportation funding model for the state of Florida. A density index for each district is computed by dividing the total number of transported students by the total number of allowable vehicle miles. The derived density index is then included in formula calculations to determine the level of funding for each district. Maximum and minimum limits have been set by state statute regarding the use of the density index. Districts with a density index below 1.7 use 1.7 in computing the state formula, while districts with a density index above 4.7 must utilize that figure in their computations. An example of the Florida Pupil Transportation funding model and the effect of density upon cost per student is shown in Table 15:2.

Similar to the Kentucky model, a curve of best fit is generated from which the predicted cost of each district's pupil transportation program is determined. Local funds make up the difference between actual and predicted costs.

Both types of density formula models are efficiency-oriented models, in that districts which transport students economically are rewarded and less local funding is necessary to underwrite the pupil transportation program. Districts which are inefficient in operating transportation programs must contribute larger amounts of local moneys to their programs. The effect of inefficiency upon the cost of a district's pupil transportation program is depicted in Table 15:3.

Fixed Unit Cost Formula

The use of fixed unit cost formulas for funding district pupil transportation programs has been adopted by eleven states.[10] With this method, a particular level of support is affixed to a unit of need such as bus mileage or students transported.

In North Dakota, both a specific amount per pupil and per mile are utilized in funding programs. Virginia divides its support among three units of need: 1) pupils transported—forty percent, 2) mileage—forty percent, and 3) number of buses in daily use—twenty percent.

The fixed unit of cost in the Washington model is a weighted student/mile unit.[11] There are five different weighting factors employed for allocating pupil transportation funds.

TABLE 15:2 The Effect Of The Density Index Upon State Allocation In District A

Vehicle miles with Students	Vehicle miles Without Students	Vehicle miles Nonessential*	Total membership Transported Students
6,000	2,500	1,500	10,500

$$\begin{array}{rr} 6000 & 2500 \\ \underline{x\ .50} & \underline{x\ .25} \\ 3000\ + & 625 = 3625 \text{ miles} \end{array}$$

$$\frac{10500}{3625} = 2.89 \text{ (density index)}$$

$$\text{Cost per student} = \frac{386.2385^{a}}{2.89} + 42.50283^{a}$$

Cost per student = 133.64 + 42.50283
District A's cost per student = $176.15

Vehicle miles with Students	Vehicle miles Without Students	Vehicle miles Nonessential*	Total membership Transported Students
10,000	3,000	2,225	10,500

$$\begin{array}{rr} 10000 & 3000 \\ \underline{x\ \ .50} & \underline{x\ .25} \\ 5000\ + & 750 = 5750 \text{ miles} \end{array}$$

$$\frac{10500}{5750} = 1.83 \text{ (density index)}$$

$$\text{Cost per student} = \frac{386.2385^{a}}{1.83} + 42.50283^{a}$$

Cost per student = $211.06 + 42.50283
District B's cost per student = $253.56

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*Does not enter into this section of the calculations

[a] Constants set annually by the State Department of Education.

FIGURE 15:3 The Effect of Inefficiency Upon Cost of District Pupil Transportation Program In District A

Vehicle miles with Students	Vehicle miles Without Students	Vehicle miles Nonessential	Total membership Transported Students
5,000	2,000	1,000	8,000

$$\begin{array}{rr} 5000 & 2000 \\ \underline{x\ .50} & \underline{x\ .25} \\ 2500\ + & 500 = 3000 \text{ miles} \end{array}$$

$$\frac{8000}{3000} = 2.66 \text{ (density index)}$$

$$\frac{386.2385^{a}}{2.66} + 42.50283^{a} = \$187.70$$

Cost per student = $187.70 Total State Allocation = $1,501,600[b]
8000 miles[c] X 180 days = 1,440,000 X 1.00[d] = $1,440,000
Prorated state allocation (45% X 1,501,600) = $675,720
Local funds needed to fund district program = $764,280

5,000	2,000	1,500	8,000

$$\begin{array}{rr} 5000 & 2000 \\ \underline{x\ .50} & \underline{x\ .25} \\ 2500\ + & 500 = 3000 \end{array}$$

$$\frac{8000}{3000} = 2.66 \text{ (density index)}$$

$$\frac{386.2385^{a}}{2.66} + 42.50283^{a} = \$187.70$$

Cost per student = $187.70 Total State Allocation = $1,501,600[b]
8500 miles[c] X 180 days = 1,530,000 X 1.15[d] = $1,759,500
Prorated state allocation (45$ X 1,501,600) = $675,720
Local funds needed to fund district program = $1,083,780

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[a] Constants set annually by the State Department of Education
[b] Unprorated
[c] Essential miles + nonessential miles
[d] District's cost per mile

1. *Base Rate*. A standard rate per allotted weighted student/mile is applied to all districts. Initially, in 1980-81, a base rate of $22 was allocated per weighted student/mile, to be increased each succeeding year according to inflationary demands.

2. *Restricted Student Load Factor*. A second weighting factor is allotted to districts, for which sparsity is a cost factor. Several districts have a small population dispersed over a large geographical area, and consequently, are unable to operate at an acceptable level of efficiency. Through the use of a fact-finding review panel and local busload data, districts which require this additional factor are determined. If the average busload is below the state minimum busload, then the districts are permitted to utilize the state minimum busload standard in their costs, rather than their actual busload average. This procedure compensates districts with a sparsity factor.

3. *Handicapped Student Load Factor*. In the transportation of handicapped students, different weighting factors are assigned according to busload. Weighting factors vary from 10:1 to 0 depending upon how many students are transported per bus. The lower the number of handicapped students transported, the higher the weighting factor. For example, if an average load for a particular handicapped bus is 1-3 students, then a weighting of 10 would be applied to that bus.

4. *Bus Maintenance Factor*. For districts which experience extraordinary maintenance costs due to heavy staffing needs for small bus fleets, or additional maintenance costs because of poor road conditions, a fourth weighting factor can be applied. Local districts qualifying for this factor must submit to a state audit in order to prove that additional funding is necessary to cover costs arising from conditions beyond a district's control.

5. *Climate and Terrain Factor*. An extra dollar rate is provided to districts which have abnormal weather conditions or must utilize routes which transverse difficult terrain to transport students. In some school districts, aircraft, boats or four-wheel drive vehicles are used in transporting students. Again, as in previous cases, in order to qualify for this type of weighting factor, a fact-finding review panel determines need.

Unique Reimbursement Plans

Hawaii and South Carolina have financing plans sufficiently different from other states so as to be judged unique. Hawaii is the only state which practices full state funding. This is due to the fact that Hawaii has no local school districts. Therefore, transportation is contracted to private businesses, the lowest bid being awarded the transportation contract.

A different case exists in South Carolina. The State Board of Education owns and operates all school buses. Maintenance and operational costs are paid for by the state board. Costs incurred by the local districts in supervising the routing and organizing of students needing transportation are reimbursed by funds appropriated by the legislature.

Eligibility Requirements

In order to provide equitable support to individual school districts, many states have developed eligibility requirements for regulating the disbursement of state aid for pupil transportation. Minimum distance mileage, handicapped student designation and hazardous walking conditions have been included within state eligibility requirements.

Minimum travel distance requirements vary in accordance with population. States in which there are large tracts of sparsely populated areas tend to have larger mileage minimums. For example, Nebraska utilizes a four-mile minimum; Kansas and South Dakota each have the requirement that a student must live beyond two and one-half miles from school to be eligible for public pupil transportation.[32] Generally, most states with minimum distance requirements favor one to two miles between home and school as a minimum.

Identification of a student as handicapped may constitute eligibility for school transportation regardless of travel distance. Individual state regulations outline which handicaps necessitate special transportation. In the majority of cases, handicapped students are transported with regular students, without any special considerations. These students generally are categorized as learning disabled, educable mentally retarded or mildly emotionally disturbed. Categories requiring special transportation are: 1) physically handicapped, 2) severely/profound/mentally handicapped, 3) trainable mentally retarded and 4) moderately/severely emotionally disturbed.[33]

Hazardous walking conditions is a relatively new category necessitating the waiver of minimum travel distance requirements. Dangerous intersections, the presence of highways or busy thoroughfares within a school's neighborhood and the absence of sidewalks may qualify as hazardous conditions.

Additional factors cited by states as reasons for state reimbursement of transportation are: 1) nonpassenger miles due to a) vehicular inspection, b) maintenance-incurred mileage, c) mandatory bus driver training, or d) mileage between school and storage facility; and 2) transportation between schools for basic programs, gifted education or vocational courses.

Transportation of Exceptional Students

In 1975, the Education for All Handicapped Children Act, frequently referred to as P.L. 94-142, was passed by Congress. Prior to 1976, less than one half the handicapped children in the United States received appropriate educational services, and at least one million were not enrolled in any puplic school program.

By the 1980-81 school year, the number of handicapped children receiving services rose thirteen percent over the number served in 1976, with approximately 500,000 students identified as requiring special education programs.[34] This influx of handicapped students into the public school system escalated education expenditures and placed an immediate financial burden upon the individual states, which were required to undertake the major responsibility of financing these programs. During the 1980-81 school year, an estimated ten billion dollars were spent nationwide on special education services.[35] One such service requiring prompt implementation was the establishment of alternative school transportation programs for students, who because of the severity of their handicaps were unable to be transported on regular schoolbuses.

Cost of Special Transportation

Special transportation of handicapped students is more expensive than regular, nonhandicapped student transportation. During the 1977-78 school year, nationwide per pupil transportation costs for a nonhandicapped student averaged $73, while the cost of transporting a handicapped student was $159, more than two times the cost of regular transportation.[36] Recent state figures reveal an even higher cost differential between regular and special transportation.

During the 1981-82 school year, the state of North Carolina spent $125.41 per handicapped pupil when transported by regular transportation, as opposed to $511.64 per handicapped student when transported by special vehicles.[37] The cost of special transportation was four times greater than that of regular transportation. Special transportation in North Carolina further escalated in cost when it was provided on a contractual basis. During the 1981-82 school year, 2,658 handicapped students were transported by contractual services at an average cost of $952 per student. This figure is roughly seven and one-half times greater than the cost of regular transportation.[38]

Illinois experienced similar cost ratios. According to 1981-82 transportation claim statistics, the state of Illinois spent on the average four and one-half times more to transport handicapped students than it did to transport students by regular transportation.[39] Similarly, during the 1982-83 school year, the state of Louisiana transported 12,330 handicapped students at an average cost per student of $773. This figure was four and one-half times greater than the $166.37 which was the average cost per regular student transported.[40]

Significantly higher cost in providing special transportation services for handicapped students were incurred by the state of Virginia. In a 1983 report to the Governor and General Assembly, a joint subcommittee examining the issue of increased funding for handicapped transportation, reported that the ratio of costs between special transportation and regular transportation was 9.69:1.[41] Arizona reported a similar ratio of cost figures existing between special and regular transportation.[42]

In several states, the cost of special transportation is unknown. A 1984 study undertaken to determine individual states' total expenditures for special transportation revealed that of the fifty states, fifteen were unable to supply a total cost figure for special transportation.[43] This was due to either current state reporting procedures or the type of pupil transportation funding model used. In the case of the latter it was not possible to separate special transportation costs from overall transportation costs. Table 15:4 provides state 1982-83 school year expenditures for special transportation.

Table 15:4 **Total State Expenditures for Special Transportation Services, School Year 1982-83**

State	Cost	State	Cost
Alabama[a]		Montana	$ 745,605
Alaska	$ 2,252,442	Nebraska	$ 5,842,110
Arizona	10:1 ratio with regular costs	Nevada[b]	
Arkansas[b]		New Hampshire	$ 1,894,605
California	$ 107,000,000	New Jersey	$ 40,000,000
Colorado[a]		New Mexico[b]	
Connecticut[a]		New York	$ 170,200,000
Delaware	$ 3,416,000	North Carolina	$ 10,981,578
Florida[b]		North Dakota[b]	
Georgia	$ 10,603,538	Ohio[b]	
Hawaii	$ 3,715,470	Oklahoma[a]	
Idaho[b]		Oregon[b]	
Illinois	$ 64,315,412.42	Pennsylvania	$ 40,000,000
Indiana	$ 5,045,018	Rhode Island	$ 5,724,076
Iowa[b]		South Carolina	$ 4,693,447
Kansas	$ 9,700,872	South Dakota	$ 1,050,729
Kentucky	$ 7,600,000	Tennessee	$ 4,560,241.28
Louisiana	$ 857,685	Texas	$ 22,022,337
Maine[b]		Utah	$ 18,975,000
Maryland[b]		Vermont	$ 1,166,863
Massachusetts[a]		Virginia[b]	
Michigan	$ 55,015,705	Washington[b]	
Minnesota[a]		West Virginia[a]	
Mississippi	$ 1,000,000	Wisconsin	$ 14,387,479
Missouri	$ 10,265,849.28	Wyoming[b]	

[a] Did not reply to study's survey.
[b] Cost of special transportation unknown.

Factors Affecting the Cost of Special Transportation

There are several characteristics of education for handicapped students which generate higher costs for special transportation. They are: 1) the number of handicapped students with a particular handicap being served within a school district, 2) severity of handicap, 3) location of programs, and 4) inefficiency in management and operation procedures.

Number of Handicapped Students Within a Particular Handicap. Several of the handicapping conditions involve small numbers of students. In order to provide educational services for these students at a cost-efficient level, centralized programs are developed to which the students are transported daily. Often, special centers for specific handicaps, such as severely/profoundly mentally retarded, serve students from three or four school districts. Rural areas are particularly hard-pressed in providing educational programs at the district level, due to sparsity of students. In many areas, handicapped students must spend up to four hours a day in total traveling time. Door-to-door service mandated by IEPs require special transportation vehicles to traverse entire counties in order to transport two or three students.[44] The increased mileage incurred by special transportation results in higher fuel, maintenance and salary costs.[45]

Severity of Handicap. The cost for special transportation escalates as the educational placement of a handicapped student becomes more restrictive. For example, there are no special transportation costs incurred by learning disabled students because those students are educated in the regular classroom and are transported on regular buses. In contrast, the average cost per pupil for special transportation for a multiple handicapped student in 1977-78 was $980.42.[46] Due to the severity of their handicaps, these students are typically found in special day schools or full-time special classes. Table 15:5 lists the transportation costs for the six handicaps most likely to necessitate special transportation according to disability and placement and illustrates that, generally, the more restrictive the educational environment, the more costly the transportation.

Table 15:5 Additional Transportation Costs Incurred According to Student Placement

Handicap	Placement		
	Regular Classroom	Full-time Special Class	Special Day School
TMR	$ 0	$324	$685
Emotional	$ 0	$467	$584
Deaf	$ 0	$554	$143
Blind	$ 0	$321	$685
Physical Handicap	$272	$415	$323
Profound	$ 0	$561	$1271

NOTE: From J. J. Kakalik, W. S. Furry, M. A. Thomas, and M. F. Carney, *The Cost of Special Education* (Santa Monica, California: The Rand Corporation, 1981).

Students who have been identified as trainable, severely or profoundly mentally retarded do not possess the intellectual skills required for mainstreaming into regular programs or independent traveling on regular school buses. Mentally retarded students in the moderate to profound range are unable to pick up cues from the environment and respond accordingly; hence, the necessity for special classes and special transportation which assure safe delivery of the student from one caretaker to another.

Physically handicapped, severely emotionally disturbed and profoundly handicapped students, by the nature of their disabilities, require extensive adaptive equipment not found on standard school buses. In order to accommodate these students, school districts must provide vehicles equipped with lifts or ramps, as well as restraints, handrails and additional maneuvering space. Vans or minibuses are viewed as the most acceptable vehicle for wheelchair use.[47]

The importance of passenger restraining devices is emphasized by school transportation supervisors. For students who are under forty pounds in body weight, car seats are a safe alternative to a wheelchair.[48] In the event that the child is too large for a car seat, but too small for a wheelchair, special chest harnesses can be attached to rings secured to the bus seats for this purpose.

With severely or profoundly handicapped students, paraprofessionals are often employed to travel with the children to and from school. In a 1982 survey, it was reported that twenty states currently use paraprofessionals in transporting handicapped students. Paraprofessionals 1) aid in maintaining appropriate behavior, 2) ensure all essential safety precautions are observed and 3) are able to take immediate action in the event of a medical crisis.[49]

Locations of Programs. The location of local district exceptional education programs often determines the type of transportation required for handicapped students. Prior to 1970, most handicapped children were educated in classrooms designated for their particular disability. With the passage of federal legislation in 1975, "A major change in programming was noted with the movement away from special classes for children with mild or moderate handicaps toward the integration of these children into regular classes."[50] In fact, "all but thirteen percent of the special education students spent at least part of the day in a regular program with nonhandicapped children."[51]

However, the location of exceptional education programs within regular public schools does not negate the need for special transportation. Trainable mentally retarded, severely emotionally disturbed, physically handicapped and profoundly handicapped still require special transportation due to their disabilities. Hearing impaired and visually handicapped students who are able to travel on regular buses to school may require alternate transportation for either of two reasons: the sparsity of students requiring the program or Individual Education Placement (IEP) program selection.

As discussed previously, school districts, particularly sparsely populated rural communities, often lack a large enough population of handicapped students to fund an exceptional education program. Pursuant to state statutes one alternative for these districts is to transport handicapped students to adjacent school districts.

Selection of a particular program by an IEP committee also affects the transportation needs of exceptional children. The IEP process determines what type of placement is most suitable for each child. If the program selected is located out of the student's immediate neighborhood, special transportation will be necessary. Consequently, handicapped students, who are mentally and physically capable of riding regular school buses, are forced to use the more expensive special transportation in order to reach their educational programs.

Management and Operational Inefficiencies. To further compound the existing costliness of special transportation due to small numbers of students, severity of handicap and IEP-designated location of program, a fourth factor responsible for escalating costs may be, in some instances, inefficient management procedures.

In a recent transportation study analyzing the efficiency of using the state-adopted density formula for allocating special transportation funds to Florida school districts, it was determined that while density explained seventy-four percent of the costs per regular student transported, it explained only thirty-six percent of the costs involved in special transportation.[32] Furthermore, when individual school districts were compared, it was discovered that in some cases, school districts with similar demographic and geographic features engendered vastly different special transportation costs. Aside from excessive fuel expense and poor utilization of transportation vehicles, other possible areas to be examined are excessive salaries, inadequate use of personnel and unnecessary mileage and maintenance expenses due to inattention to cost-efficient routing.

Recommendations for Cost-Efficient Practices

The costliness of special transportation has prompted many states to reevaluate current pupil transportation programs and to develop recommendations outlining cost-efficient management procedures for transporting handicapped students. Five areas currently under review are: 1) alternative transportation plans, 2) funding incentives, 3) eligibility requirements, 4) personnel responsibilities and 5) general cost-reducing operating procedures.

Alternative Transportation Plans. Door-to-door pickup of handicapped students is the most expensive type of special transportation, and in many cases, the most unnecessary. Door-to-door service should only be used with the most severely handicapped students, "whose handicaps preclude all other forms of transportation."[33] Students requiring door-to-door service are multiple-handicapped students, profoundly mentally retarded students or students whose individual handicaps are so severe that they cannot be transported safely by private car to a pickup station (i.e., a central location, to which students are transported by parents). Eligibility for door-to-door pickup should be assessed on an individual basis.

Where sound risk management practice and state statute allow, one type of alternative transportation which effectively reduces the cost of transporting handicapped students is parent transportation. In this case, parents are paid a flat rate per mile (.18 to .22) for transporting their handicapped child. Procedures to be followed for reimbursing parents should include the following information: 1) the allowable rate, 2) procedure for claiming reimbursement and 3) information required of parents in order to be reimbursed (names of children, dates they were transported, mileage). When permitted by statutes, parent transportation can be an effective, cost-reducing practice in states which have large rural populations.

Other forms of alternative transportation utilized by school districts are contracts with private companies, such as taxicab or special transportation companies. In these cases, it has been determined that providing district-owned transportation for handicapped students is considerably more expensive.

When permissable, private cars can also be used for transporting high school educable mentally retarded students from a school program to a place of employment. When students are involved in work-study programs, the use of district schoolbuses to transport individual students is not a cost-effective method of transportation. In cases where private vehicles are used for transporting handicapped students, policies covering insurance and liability requirements must be in effect.

Funding Incentives. Several state departments of education have recommended funding incentives to encourage school districts to practice cost-efficient methods of transporting handicapped students. A California Ad Hoc Committee on Transportation Finances offered several recommendations, which would have the twofold effect of implementing more efficient and cost-reducing means of transporting handicapped students, while providing financial incentives to local school districts.[54] These recommendations are as follows:

1. Provide reimbursement for only the most severely handicapped students, who cannot be transported by regular schoolbuses.
2. Allow 100 percent reimbursement for handicapped student transportation when it is being provided by a single district for a multi-district area.
3. Revise the excess-cost formula used in calculating special education transportation, so that it is "determined on the basis of predominance of severely handicapped being transported and density of area served instead of the current basis type of vehicle and average daily hours of operation."[55]
4. Encourage county superintendents to be responsible for transportation of handicapped students countywide, rather than operating several local district programs. Countywide systems of transportation would be encouraged by: (a) equalizing bus replacement allowances from the state for regular and special education buses and (b) allowing county superintendents to levy a fee for every handicapped student transported.
5. Encourage the use of computerization for scheduling routing and managing changes of buses by establishing a revolving fund, which would enable school districts to draw out funds necessary for developing computer-based transportation systems. Districts would repay loans according to the amount of savings realized.

In Virginia, a 1983 joint subcommittee of the state legislature studying handicapped students' transportation costs also recommended that the current method for calculating special education transportation costs be revised. First, the committee suggested that separate reporting of transportation costs for handicapped and regular students be required. This would aid in determining specific items responsible for escalating costs. Second, the committee recommended that the board of education adopt regulations which would: 1) establish eligibility criteria for transporting handicapped students by exclusive scheduling; and 2) require that each school division submit, as a component of its annual pupil transportation funding report, documentation of cost effective measures undertaken during its regular route development process to improve the efficiency of its special education transportation program, or provide justification for maintaining its current arrangements as a prerequisite for receiving supplemental aid for the exclusive scheduling of handicapped students for succeeding years.

Third, the committee advocated that current statutes be amended to include two cost-reducing recommendations. First, local school districts should be able to allot funds for payment of transportation of handicapped students by means other than district-owned buses. Second, the existing formula should be revised so that it is based upon the number of handicapped students transported, buses in use and miles traveled; and local districts are reimbursed for only the approved costs involved in transporting the more severely handicapped students.[56]

Eligibility Requirements. Explicit eligibility regulations identifying which handicapped students require special transportation are of primary importance in trimming pupil transportation budgets. In the majority of cases, handicapped students should ride regular school buses; only the more severely handicapped student requires special transportation.

Several states have adopted regulations which require documentation from school districts for students transported by buses serving exclusively handicapped children. Door-to-door service is discouraged except for the severely handicapped; even then, pickup stations are recommended except in cases where the nature of the handicap warrants such individual service. Some states require written permission to transport non-severely handicapped students.

Utah reimburses school districts for costs involved in transporting trainable mentally retarded, severely motor handicapped and severely multiple-handicapped, as well as students attending the state school for the deaf and blind. If other types of handicapped students must be transported by a means other than the regular school bus, prior approval from the state department of education must be received in order to be reimbursed.[17]

Personnel Responsibilities. An area which indirectly affects special transportation costs is personnel responsibilities. Unclear division of responsibility leads to mismanagement, unenforcement of procedures and an escalation of costs.

In several states, responsibilities of school administrators, transportation supervisors and route managers, bus drivers, aides and parents are clearly stated, either in policy statements, handbooks or the state education regulations. The New Mexico State Department of Education publishes a handbook for bus drivers which not only outlines the qualifications necessary for driving special transportation vehicles, but also describes the responsibilities of school administrators, parents and aides.[18] Louisiana has issued a similar handbook, while Florida has provided through a question/answer format, information concerning: 1) handicapped students and evacuation drills, 2) driver training, 3) techniques and procedures for dealing with unmanageable handicapped students and 4) allowable travel time spent in transporting handicapped students to and from school.

Parents' responsibilities are outlined by several states, in an effort to minimize expenses incurred when parents fail to notify transportation officials if their child is ill or will not be riding the special bus on a particular day. Failure to notify personnel results in unnecessary mileage.

In some instances, district-supplied transportation is not possible because of the inaccessible location of a student's home. These situations must be resolved, entailing the cooperation of both school personnel and parents. Clearly defined roles of leadership and responsibility expedite the resolution of such problems.

Other Cost-Reducing Operating Policies. In addition to the four areas discussed above are cost-reducing procedures which can be established and practiced at the local level. These include:

1. Adjusting school hours for various programs to facilitate scheduling and optimum use of transportation vehicles.
2. Filling buses to capacity.
3. Utilizing 65 passenger side-lift busses to transport rural handicapped students who live along regular routes, rather than invest in mini-buses or vans.

4. Having a representative from the pupil transportation division attend a handicapped students' IEP meetings, in order to advise committee members on the cost of various placements.

Management of Pupil Transportation

The management aspect of pupil transportation is critical and complex. This discussion will focus first on personnel problems faced by many transportation divisions and, second, on the uses of microcomputers in the management of school transportation.

Bus driver shortages are becoming a real problem for many school districts. Fewer males are applying to be bus drivers and those that do frequently plan the job as an interim only a short step to something else. Boston Public schools have experienced a severe problem with bus drivers having criminal records. In fact, a recent study found that over half of Boston's 575 school bus and van drivers had criminal records. Of these, ten percent had "serious court records." Due to the shortages they have experienced of late, the district is forced to accept some applicants with criminal records in order to comply with court ordered busing of 35,000 students.[59]

Quality Circles

Some districts are beginning to consider new programs and alternatives in an effort to avoid bus driver shortages. For example, school districts have introduced the concept of quality circles in their transportation department. Quality Circles as an approach to problem solving has been used successfully by industry in the United States since 1974 and in Japan since the early 1960s. The quality circle is a highly structured process in which a small group (usually five to ten people) meet regularly on a voluntary basis to work through 1) problem selection, 2) problem analysis, 3) solution selection and 4) presentation to management.

The problems addressed by quality circles are not restricted to quality but may include any area that influences the output of the work unit. This includes issues regarding safety, job structure, process flow, reporting requirements and control mechanisms. They do not, however, directly address personnel matters.

Management Uses of Computers in School Transportation

Administrative uses of computers are being introduced for a number of diverse applications in various departments of school districts. School transportation departments, being no exception, have found that implementation of computer technology can result in substantial savings of both time and money. In addition to such applications as word processing, personnel management and contract management, transportation departments use computers for school bus routing and scheduling.

Although the specifics of routing and scheduling vary from system to system, the following is an overview of the types of capabilities currently available in this area. Graphics systems provide a visual display of routes and allow for quick and easy determination of the effects of changing or combining routes and altering the location and time of stops. By changing one variable, all information dependent on that variable is automatically changed and reflected in the route map. As changes are made in routes and pick-up locations, an updated list of student names, pick-up points and pick-up times can then be generated. This allows for easy continual revision, ensuring that the most efficient use of buses and bus routes is being made. Once routes and pick-up points have been established, a suitable pick-up location for a student may be provided simply by entering an address. The Milwaukee Public School system which put its computerized routing system into operation for the 1979-80 school year found that it paid for itself in the first year.

In spite of increased transportation costs on a per vehicle basis and a recognized inflation factor, transportation costs in dollars have decreased as follows:

1979/80—$14,789,874
1980/81—$14,577,098
1981/82—$13,836,716[60]

The decision to implement the computerized system in Milwaukee also resulted in the initiation of other policy changes which affected the efficiency of the transportation department. One such policy change was the decision to stagger school starting times, thus allowing the same bus to make two or three trips. Despite additional suburban schools being added to the routes, ". . . sixty fewer vehicles (were) used for the 1982 to 1983 school year than were used in the 1977 to 1978 school year, approximately ten percent less."[61]

Another important computer application in transportation is fleet maintenance. By maintaining files on each vehicle in a fleet and all transactions pertaining to that vehicle, a number of reports can be generated, concerning: 1) a summary of transactions pertaining to each vehicle as well as the entire fleet, 2) lists according to type of maintenance work performed, 3) yearly and/or cummulative histories of vehicles, 4) fuel consumption and 5) which vehicles are due to be checked (on the basis of mileage or time lasped). Such reports enable management to determine the effectiveness of the existing maintenance program and replacement date for vehicles. Additionally, inventories may be kept up-to-date regarding parts in stock, parts needing to be replaced, cost and so on.

Originally such applications required implementation on mainframe computers. A number of commercial software programs are now available for microcomputers, in addition to special transportation packages which have been privately developed for particular districts and tailored to specific needs.

A 1982 report prepared for the California Energy Commission regarding computerized pupil transportation systems in California found, "Successful implementation . . . for the San Francisco Unified School District and the Los Angles County Superintendent of Schools resulted in annual savings of $857,000. This system uses computer techniques to optimize bus fleet routing and scheduling, thereby reducing overall fleet travel time, fuel consumption and vehicle stock."[62] The findings report that "over one million gallons of motor fuel and twenty million dollars in capital and operating expenses could be saved annually in California, if computer management was applied to fleets of twenty or more buses. Payback on first costs was found to be one to two years."[63] The study concluded that using a computerized transportation system on fleets of thirty-three or more buses would result in statewide cost savings and energy conservation in excess of fourteen million dollars and 730,000 gallons per year. Although the districts identified by the study claimed cost savings and energy conservation, the study team cautioned districts considering computerization that depending in the geographical area significant cost and development time could be greater than any potential savings. As emphasized by the study team, the unique transportation services required by an individual school district should dictate the computerized transportation system or combination of systems needed, whether it be for recordkeeping, computer-assisted bus scheduling, generating bus schedules, designing desegregation programs or servicing special educations pupils under the master plan."[64]

The report proposed the following criteria for consideration by potential adopters of computerized systems to make their transportation systems more energy efficient and cost effective.

Number of buses. The first criterion is the size of the bus fleet. A school district with two or three buses would find little advantage to computerizing their routing and scheduling.

Geographic factors. Urban districts with high density population and a wide variety of streets and highways are better candidates for computerization than a rural district with low density population and limited streets and highways.

Topography. Whether the terrain is mountainous, hilly, flat or contains natural barriers such as bodies of water and rivers, must be taken into consideration. Since routing and scheduling depends so much on maps, it is difficult to input such data into the computer.

Accessibility to computers. Not only must the computer capability be available to the district but the transportation department must receive a high priority for on-line use of the computer in a variety of hardware and software.

Total commitment. In order for a computerized routing schedule to work effectively, there should be broad community support, solid board and administrative backing and knowledgeable professional and technical staff assistance."[65]

Consideration Regarding Computerization

In order to determine the efficiency and effectiveness of computerizing the transportation program, several areas must be carefully evaluated. The first step is to conduct an appraisal of the district's transportation program. Second, examine a computerized transportation system in a similar district to determine problems encountered in the implementation process. The third step is planning, since proper planning can "eliminate eighty percent of the problems."[66] It is, of course, imperative to thoroughly evaluate the costs of implementing a computerized pupil transportation system during this planning stage. The major costs considerations are: 1) hardware and software, 2) installation, 3) regular maintenance, 4) adequate personnel, 5) staff training and 6) adequate workspace. Fourth, it is imperative that time be allocated in the early stages for proper staff training. Finally, it is recommended that the computerized programs be reviewed and evaluated annually. This is especially important with respect to scheduling and routing, since those programs need to reflect enrollment changes each year.

The primary factors influencing the impact of computerized transportation systems are: 1) size of bus fleet, 2) number of students transported, 3) geographic area which the fleet will operate (size and topography), 4) availability of computer services, (district owned versus service center) and 5) the way the computer support of transportation services relates to other management reporting systems.[67] The findings of the California report (1982) indicate the actual start-up costs will be influenced by: 1) size of computerized network, 2) number of intersections to be coded, 3) direct expense, 4) software lease, 5) professional services and 6) staff training need.[68]

Safety—The Seatbelt Issue

Twenty-three million children ride 350,000 school buses daily.[69] This translates into over fifty billion passenger miles each year.[70] The leading cause of death of children in the United States is the motor vehicle accident. The National Safety Council reports that for those between the ages of one and fourteen, traffic accidents claim more lives than cancer, congenital disease, pneumonia, drowning or fire. According to NSC, over half these highway deaths could be prevented if the children were properly "buckled up."[71]

> To date 42 states and the District of Columbia have enacted child restraint legislation requiring the use of child safety seats for infants and seat belts or child restraints for older children. As a result, observational studies indicate a substantial increase in the use of child restraints, and motor vehicles statistics show a significant drop in fatalities. Encouraged by these very positive results, one state has now extended its laws to include children up to the age of ten, and others are considering similar proposals.[72]

It is evident that one cannot bypass the politics in any school-related issue. Many parents who use seat belts for their children in cars wonder why seat belts are not installed in school buses. As a result they are supporting organizations proposing mandated seat belts for school buses. Table 15:6 summarizes the pros and cons of the school bus/seat belt argument.

TABLE 15:6 Pros and Cons in the School Bus Seat Belt Issue

Pro	Cons
• Data proves that seat belts save lives	• School buses have the best safety record in transportation
• Kids who learn to buckle up on school buses will carry the habit over to automobiles	• Other measures, including compartmentalization and driver training are more cost effective than seat belts
• Studies on compartmentalization are not complete and need to be restructured	• Children will not wear their seat belts
• Studies that say seat belts hurt young bodies are not true	• Belts can harm young bodies
• New school bus design lends itself to seat belts	• Belts are too costly to install
• Younger parents grew up with seat belts and demand additional protection	• Buses are so large that they do not suffer damage in the same way an automobile does in a collision

Source: Rex, F.J., "Seat Belts in School Buses: A Study of Current Protective and Potential Action," *School Business Affairs* (April, 1985) 31.

What may seem clear-cut to some is complicated by such considerations as those below by the Department of Transportation and National Transportation Safety Board.

> The U.S. Department of Transportation (DOT), in its July 1977 School Bus Vehicle Safety Report, warned that seat frames, seat anchorages and bus floors must be strengthened to support the leads imposed by belted occupants before belts could become a viable alternative. The report warned that seat belt usage in school buses could actually increase the severity of injuries to passengers in certain crash situations. It admitted, however, a lack of sufficient evidence to assess the general validity of these findings.[73]
>
> The National Transportation Safety Board (NTSB) released a series of safety recommendations in its H-83-39 through 41 report that credited the Post-DOT bus with a satisfactory performance in the vast majority of school bus accidents. It stressed the necessity for a strong and continuing commitment to the education of pupil passengers in seat belt usage if they are installed but cautioned that justification for extending seat belts to the larger Type I buses is largely non-existent.[74]

Since the issue of seat belts has become somewhat political, it is not surprising that professional societies are playing a significant role. For example, The Physicians for Automotive Safety (PAS) is one of the more active proponents of seat belts on school buses. Dentists also support the stance taken by physicians.[75]

In reviewing studies conducted by Pupil Transportation Associations, Farmer found:

> The California Association of School Transportation Officials (CASTO) conducted an exhaustive search of the literature for documented research on the subject. Its findings . . . were largely responsible for its decision to oppose seat belts for Type I school buses.
>
> The Pennsylvania School Bus Association . . . introduced data to: 1) substantiate a decline in seat belt usage in automobiles, 2) support the fact that school buses experience fewer fatalities than any other mode of surface transportation, 3) confirm a continuing improvement in the safety image of the overall school bus operation, and 4) further validate its position against the installation of seat belts in the larger conventional and transit type vehicles.
>
> The Tennessee Association of Pupil Transportation (TAPT) relied upon an impressive safety record to support its position against the use of seat belts on Type I school buses. The Association emphasized the fact that the state has not experienced an on-board fatality since 1977 and only one other since 1963; that personal injury accidents, on the average, occur no more frequently than every 597,557 miles; that injuries in these accidents requiring overnight confinement are experienced at 5,949,589 mile intervals; and that school buses travel 34,210,138 miles between accidents resulting in offboard fatalities.
>
> The National Association for Pupil Transportation (NAPT) . . . stops short of endorsing the use of seat belts on Type I school buses. Ray Westmoreland,

> then President of the NAPT, as quoted in 1984 issue of *School Bus Fleet*, said "There is no absolute proof that seat belts are the answer for the safety of students in school buses." He further states, "The Type I school bus is structurally designed to provide the greatest safety possible for its passengers."
>
> The NSTA (National School Transportation Association) Board of Directors issued the following statement: "The Association is not so much opposed to the use of safety belts in school buses as it is supportive of the concept of compartmentalization . . . NSTA further believes that compartmentalization is preferable to any form of containment that relies upon the use of safety belts or other similar type restraining devices."[76]

On the other hand, an authority in pupil transportation from the National Highway Traffic Safety Administration claimed that "riders are better off restrained than unrestrained if the bus rolls over, crashes into another object or stops suddenly." The same authority acknowledged, however, that seat belts were not without problems, particularly in the areas of high installation costs, buses' inability to structurally accommodate such belts and difficulty ensuring proper belt adjustment for small children.[77]

In general, seat belts, are opposed by bus company operators and bus manufacturers in favor of compartmentalization. This concept of compartmentalization grew out of a 1971 UCLA study mandated by federal regulation in 1977.[78] Under compartmentalization the distance between seats, the height of seat backs (twenty-four inches) and padding to protect the child and the bus wall on one side and the aisle on the other are mandated.[79] Another argument used by seat belt opponents is that the real danger zone is outside the bus. Figures for 1979-1982 show that seventy students died on buses while 134 students were killed loading and unloading.[80] Of these, eighty-nine were killed by their own bus and forty-five were killed by other vehicles.[81] Additional arguments include: that children spend more time in the family car than in the bus; that children may not use seat belts if installed; that students should be instructed on safety measures regarding the dangers of loading and unloading and how to act in an emergency; and that children can actually be injured by the seat belts which restrain them during an accident.[82]

These claims must be weighed against the suggestions that the apparently good safety record of school buses is misleading. "According to the National Safety Council's own disclaimer in "Accident Facts," the states are inconsistent in how and what they report regarding accidents, injuries and even deaths, and that underreporting is widespread."[83]

The results of studies have been inconclusive at best. A 1967 study in which anthropomorphic dummies were used in three school buses crashed head-on, sideways and rear-end clearly established the value in passenger protection of lap belts when used with high back seats. The study noted that belts can be added to the safety seat at very little added cost and provide the continuity needed for proper training of youths concerning habitual use of restraints when riding in any vehicle.[84]

A more recent study described by Yeager conducted under a 1978 NHTSA mandate compared various manufacturer's seats under testing situations and the findings showed the differences with and without seat belts to be insignificant.

> They tested at low speed and not for lateral or rear-end accidents. . . . The experiment indicated that when seat belted, the dummies had a slightly higher head force reading as they rotated over their seat belts and hit their heads on the padded seat backs and tops. Ironically, in the same tests the researchers found that the dummies of small children flew forward, hitting their foreheads on the seatbacks, flexed their heads sharply backward, arching their backs with severity. Taller dummies hit their knees and rotated forward, striking their throats on the seat tops. Since there were no measuring devices in either the backs or throats, no comparable readings were available, but the failure of the seat was evident. It has been more then seven years since the new seat has been produced. By now a significant reduction in injuries should have been noticed. The latest National Safety Council statistics show injuries down slightly, but so is the number of students being transported.[85]

Current Issues and Future Consideration

As suggested in this chapter, the three current issues regarding school transportation are: 1) potential uses of microcomputers in school transportation management, 2) possible shortage of school bus drivers and 3) whether to mandate the use of seat belts in school buses.

Administrative uses of microcomputers are being introduced across various areas and departments of school districts—and the transportation department is no exception. The three major areas for microcomputer use are: 1) routing and scheduling, 2) design of attendence areas and school district consolidation and 3) fleet maintenance. The transportation manager must determine district needs and select the program which best meets those needs. In addition to options by general and specific applications, various organizations are beginning to offer special school transportation packages developed for particular districts based on individual needs. These include programs written for efficient routing, maintenance of vehicles and persons.

Bus driver shortages are becoming a problem for many school districts. Fewer individuals are applying and when they do, it is with the intention of it being temporary. Additionally, the problem of bus drivers with criminal records suggests immediate attention be given to attracting and maintaining good bus drivers.

Safety is properly a major concern. According to estimates from the National Safety Council, 390,000 school buses transported 21.5 million students each day in 1983. Ten school bus passengers were killed and approximately 3,300 students were injured in accidents involving school buses. Many parents, school board members and law makers are convinced that seat belts would significantly reduce the number of injuries and are demanding that school buses be outfitted with safety restraints and that school systems ensure their proper use.

The increasing interest in seat belts for school bus safety has generated a new organization, the National Coalition for Seat Belts on School Buses.

School Transportation services have a complementary effect upon the school district's instructional programs and must be considered by educational administrators.

Although the social and educational issues of the past two decades—desegregation, education for handicapped children, academic excellence, program equity—have been recognized and are being dealt with by the schools, there is no sign that there will be a lessening of transportation expenditures associated with these issues.

As indicated in the opening section of this chapter, the cost of pupil transportation programs has grown dramatically in the past fifty years. Social responsibilities, as well as increased educational demands, have attributed to this escalation in costs. Busing, despite the fact that its value as a desegregation tool is being openly questioned by both parents and educators, remains the dominant force in maintaining racially mixed schools. With the continued emphasis upon deinstitutionalization, increasing numbers of severely handicapped children will remain at home and attend community schools. These students require transportation services which are specialized and expensive to provide. The push for academic excellence has had a resulting impact upon transportation costs, in the form of additional field trips, academic activities and the establishment of "magnet" schools for high-achieving students.

Program equity also has had, and will continue to have, an effect upon transportation expenditures. Several states in the past eight years have been forced to revamp their school funding methods in the wake of court decisions concerning violations of state constitutions. Pupil transportation costs will rise correspondingly with escalation of costs involved in providing additional programs and services for various groups of students, i.e., handicapped students, vocational students being transported to regional centers.

Three additional factors may contribute to an increase in pupil transportation costs: 1) parental demand for seat belts, 2) emphasis upon child safety and 3) a second "baby boom" generation. Concern for the safety of children walking to and from school has generated movements in some states to consider utilizing the busing of elementary students as a way to avert child-snatching. Although deemed as too costly a solution, mass transportation of elementary school-age children has been and continues to be viewed as one viable alternative for ensuring the safety of this age group.

Finally, a second "baby boom" is occurring as women opt to have children later in life. In many sections of the country, declining enrollments in elementary schools have been reversed and have begun to climb as children of the post-World War II baby boom generation reach school-age.

In conclusion, pupil transportation costs will not decrease in the coming years, but rather for the reasons cited, will continue to increase. To ensure equitable sharing of costs at the local district level, states must study more closely some of the factors impinging upon transportation expenses and provide funding formulas which will assist in alleviating unequitable burdens.

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16

School Desegregation and Student Busing

Richard A. King

Development of sound transportation policy requires consideration of many factors. Beyond traditional concerns for adequate, efficient and safe operation, the degree to which school attendance areas and associated bus routes perpetuate patterns of pupil segregation must receive attention from school business administrators. An understanding of law related to discrimination and desegregation is essential for formulating effective transportation policy, as well as for assigning personnel and pupils to schools, constructing and closing school facilities, creating and consolidating school districts and planning and implementing desegregation programs. School personnel must strive to ensure that policies and practices in these areas promote opportunities for educational quality for all students on an "equal" basis.

Board members and educators should recognize the necessity for planning transportation systems as an integral part of the total school experience.[1] In the past half century, school buses enabled students to attend larger, consolidated schools with their broader program offerings and more efficient operation. School buses have also become the primary vehicle for achieving goals of desegregation. Transportation makes it possible for pupils to receive equal opportunities in racially mixed classrooms of paired or clustered schools. Increasingly balanced racial representation among schools or adjacent school districts is possible despite neighborhood residential patterns.

In 1984 the National Education Association (NEA) examined desegregation in the three large school districts of Austin, Charlotte-Mecklenburg and Seattle and reported that busing had been effective in enabling students to attend integrated schools. The report stated that minority students were closing the test score gap, that inequities in facilities and educational resources were largely eliminated and that school and community members had grown in their understanding of people of other races.[2] Moreover, in the nation as a whole, the percentage of black students attending schools with 90 to 100 percent minority enrollment had dropped from 65 to 33 percent between 1968 and 1980.[3]

Nevertheless, busing to achieve racial balance has not been without problems. Cross-district transportation has not consistently been shown to improve achievement levels of minority pupils and is partially blamed for deteriorated education of children in urban school systems. Busing has had such counter-effects as the flight of the middle class from public schools in urban areas and the erosion of public confidence in the ability of schools to integrate successfully.

In contrast to the NEA conclusions are those of a 1984 National Institute of Education analysis of 157 studies on integration and academic achievement.

Cuddy reported that desegregation efforts have not improved black students' achievement in math at all but may have increased reading achievement among blacks by two to six weeks in the year in which integration occurred.[4] He urged improvements in instruction and greater involvement of parents, rather than forced busing, to enhance the education of minorities.

Reports of the effectiveness of desegregation efforts generally, and of busing specifically, have been mixed. If it could be demonstrated conclusively that integration enhanced pupils' education and mutual understanding, then the investment of time and funds for planning and implementing desegregation programs would be cost-effective.[5] Otherwise, societal and school investment in pupil busing to balance racial compositions of schools is unwarranted. Despite the importance of educational and societal benefits and costs of desegregation, this chapter centers its attention on legal mandates and policy issues.

Brown v. Board of Education[6] clearly placed an obligation on states to provide equal educational opportunities in unitary school systems. Desegregation litigation through the 1960s and 1970s provided remedies and incentives to achieve this goal. Busing was often ordered by federal courts to balance racial compositions within districts, but strict interpretation of the Fourteenth Amendment largely frustrated attempts to force consolidation of or pupil transportation between neighboring school districts. As Constitutional interpretations continue to evolve, it is clear that findings of illegal segregation must rest upon proof of discriminatory intent in public officials' actions. Federal administrative pronouncements of the mid-1980s define future directions for America's schools, emphasizing excellence in education as a more pressing concern than that of racially balanced schools.

School business officials must consider federal judicial decisions, legislative actions and administrative directions as they develop recommendations for student transportation, school attendance zones' district boundaries, the construction of new facilities and the abandonment of deteriorated facilities in a nondiscriminatory manner. The myriad legal and policy issues associated with racial and ethnic segregation are the subject of this chapter.

The Mandate to Desegregate Schools

Segregation of pupils by race in America's public schools received judicial support through the first half of the 20th century. For many years, interpretation of the Fourteenth Amendment relied upon the doctrine of "separate but equal." In 1896 the U.S. Supreme Court applied this judicial standard in *Plessy v. Ferguson*[7] to justify segregated railroad carriers in Louisiana. In developing its rationale, the Court referred to the maintenance of separate schools as an illustration of legitimate exercise of police power of state legislatures. The equal protection clause could embrace state statutes requiring "equal but separate accommodations" in public transportation and schools. Ironically, the Fourteenth Amendment was ratified following the Civil War to assure that states' reconstruction statutes would fall within the protections and guarantees of the Constitution.

Of concern to Justice Harlan in his vehement dissent in *Plessy*, and of importance to justices in more recent school desegregation litigation, was the intent of the state's action: "Everyone knows that the statute in question had its origin in the purpose, not so much to exclude white persons from railroad cars occupied by blacks, as to exclude colored people from coaches occupied by or assigned to white persons."[8] Ultimately, his reasoning that "in respect of civil rights, all citizens are equal before the law" became the Court's interpretation of the Fourteenth Amendment.

The Court upheld segregation of schools by official state action in several subsequent cases involving: 1) demands of blacks to terminate public support of all high schools in Atlanta after the single black high school was closed;[9] 2) the right of a privately chartered college to admit students of both races despite a Kentucky law which mandated segregated schooling;[10] and 3) the classification of a Chinese student as colored and thus assigned to a black school under a Missouri statute.[11] Once several university-level cases opened the door to racially mixed education, the Court revised its position on state-supported segregation.

Several states without professional programs for blacks provided financial assistance for them to attend colleges in neighboring states. In 1935, a Maryland court agreed with a black law school applicant that out-of-state scholarships were insufficient to meet the state's obligation to provide "equal but separate" education.[12] Several years later, the Supreme Court ruled that the availability of universities in adjacent states did not meet Missouri's obligation.[13] While not ordering admission of these students, the way was paved for the desegregation of higher education, particularly given the financial burden of establishing separate colleges within states which had previously relied upon others to accept blacks.

Early in the 1950s, the Supreme Court recognized inequities present in segregated higher education. It examined such "intangibles" as prestige and experience of faculty and administrators and concluded that a Texas black law school was materially inferior.[14] In a companion case, the Court reviewed the treatment of blacks at the racially mixed University of Oklahoma. They found the denial of free access to all sections of the library, classrooms and cafeteria to handicap blacks by restricting opportunities for "intellectual commingling" with fellow students. Black students, concluded the Court, ". . . having been admitted to a state-supported graduate school, must receive the same treatment at the hands of the state as students of other races."[15]

In reviewing higher education segregation between 1938 and 1950, the Supreme Court increasingly recognized that interactions among students was an important part of the learning process itself. The "equal" provision of the *Plessy* standard compelled the justices to determine whether separate schooling carried subtle and unquantifiable inequalities.[16] The application of this reasoning to public education at elementary and secondary levels was inevitable.

The unanimous *Brown v. Board of Education* decision stated definitively that public school segregation was a denial of the equal protection clause of the Fourteenth Amendment. State statutes that mandated segregated schooling in Virginia, South Carolina and Delaware, and that permitted separate facilities in Kansas, were declared unconstitutional. Segregated education was "inherently unequal"[17] even when buildings, curriculum, qualifications of faculty and other tangible factors were substantially the same. The Court examined detrimental effects of state-sanctioned segregation and concluded that the denial of benefits available in racially integrated schools slowed black children's educational development.

The mandate to desegregate was emphatic, but justices delayed determination of appropriate relief. They noted that implementation of the edict throughout the nation presented problems of considerable complexity.[18] In its decision the following term, the Court placed the burden for interpreting its "nebulous doctrine"[19] on both school districts and federal courts: "School authorities have the primary responsibility for elucidating, assessing and solving these problems; courts will have to consider whether the action of school authorities constitutes good faith implementation of the governing constitutional principles."[20] Similarly undefined timelines directed school officials to make a prompt and reasonable start toward full compliance and lower courts to fashion remedies to permit desegregation with all deliberate speed.

The language of these decisions permitted accommodation and compromise necessary for public officials to effectively dismantle dual school systems. However, the Court's orders also allowed states and schools to postpone desegregation measures. The vague doctrine and time frame contributed to delays and outright noncompliance, especially in the South where there was considerable animosity to the rulings.[21]

De jure segregation— governmentally promulgated and enforced[22] separation of pupils by race—was to be eliminated. Yet the Court did not require affirmative intervention by public officials to integrate schools. On remand from one of the four decisions litigated in *Brown*, a district court judge in South Carolina observed: "The Constitution, in other words, does not require integration. It merely forbids discrimination."[23] This response reinforced beliefs that desegregation and integration were disparate concepts, that affirmative steps were not necessary to dismantle dual systems and that equal education need not be integrated education.[24] Rather than initiate immediate and affirmative steps, subsequent state and school district actions undermined the *Brown* mandate.

Numerous policy options adopted by states and local districts in response to the orders were later declared unconstitutional. These included: 1) ratifying state constitutional amendments or statutes to impede desegregation efforts, such as an Arkansas amendment commanding the state legislature to oppose "in every constitutional manner the unconstitutional desegregation decisions" of the Supreme Court;[25] 2) closing schools serving blacks while keeping others open but denying applications from black children;[26] 3) formulating "minority to majority" transfer policies, whereby students who constituted a minority following reassignment under desegregation plans were permitted to return to their prior school where they were part of the majority;[27] 4) gerrymandering attendance zones, i.e. adjusting geographic areas that prescribe which students attend specific schools;[28] and 5) providing public scholarships and transportation for students attending private segregated academies.[29]

Legislative and school board intent was the primary concern of courts in reviews of these actions. Public schools in Prince Edward County of Virginia, for example, had been closed from 1959 to 1964 by school officials, while state and local funds were available for both races to attend nonsectarian private schools or public schools outside the county. The Supreme Court found segregative intent in school officials' actions, which were taken for one reason only: "to ensure . . . that white and colored children in Prince Edward County would not, under any circumstances, go to the same school."[30] This use of public funds perpetuated unconstitutional segregation and the Court declared that "the time for mere 'deliberate speed' has run out."

Many states and school districts turned to freedom of choice policies to enable students to voluntarily select which school to attend. In 1968 the effectiveness of free choice plans was examined in *Green*[31] in light of the intent of state and local policymakers. Despite the stated purpose of the New Kent County school board policy to enable all students to freely choose among schools, the plan was totally ineffective. The Court concluded that the prior dual system continued, as every facet of each school's operation was racially identifiable.

Rather than prohibit educators from implementing any form of choice, the Court held only that using freedom of choice plans was not an end in itself. Free choice, as in the more recent use of magnet schools to attract students from all parts of a district, was permissible if it effectively dismantled dual systems. Freedom of choice alone was not sufficient, and school officials had an affimative duty to identify solutions. "The burden on a school board today is to come forward with a plan that promises realistically to work, and promises realistically to work *now*."[32]

One year later, the Court again emphasized the obligation of states and local boards "to terminate dual school systems at once and to operate now and hereafter only unitary schools."[33] Fifteen years after *Brown* the Court declared that all deliberate speed was no longer the constitutional standard.

Student Busing to Achieve Racial Balance

Freedom of choice among schools had largely failed and more effective balancing of racial compositions had to occur immediately. Remedies to "cure"[34] past practices of racial discrimination demanded that school boards assert positive policies[35] for assigning pupils to schools. The courts initially turned to student busing to make freedom of choice plans work more effectively. Later, court-ordered pupil assignment and busing would undo effects of past *de jure* segregation.

Transportation was essential to enable students to freely choose among schools. The unavailability of buses in many cases inhibited choice and served to perpetuate dual systems. For example, the failure of an Alabama district to transport black students to schools was declared unconstitutional in 1966.[36] The district court noted that if freedom of choice were to operate effectively, all students must be permitted to apply to any school whether they previously attended the selected school, whether the board agreed they made reasonable choices or whether the board considered transportation reasonably available. A similarly ineffective free choice plan in Arkansas depended upon two separate bus systems that duplicated routes throughout the district. The Eighth Circuit concluded that the school board's operation of racially identifiable buses was designed to perpetuate segregated schools.[37]

Opponents to student busing interpreted the language of the 1964 Civil Rights Act as prohibiting courts from ordering pupil assignment and busing. Desegregation was defined as the placement of pupils without regard to race, color, religion or national origin, provided that " 'desegregation' shall not mean the assignment of students to public schools in order to overcome racial imbalance."[38] Even more explicitly, Title IV restricted the power of federal officials and courts from issuing "any order seeking to achieve a racial balance in any school by requiring the transportation of pupils from one school to another or one school district to another. . . ."[39]

The Department of Health, Education and Welfare interpreted these so called "anti-busing" provisions as applicable only to those school districts which were not formerly *de jure* segregated. In *United States v. Jefferson* the Fifth Circuit upheld the HEW interpretation,[40] thus endorsing transportation as a part of free choice plans designed to undo past racial discrimination. The court further stated that percentages listed within Title IV were a general rule of thumb or objective administrative guide[41] for measuring the effectiveness of approved plans. Rather than requiring racial compositions of each school to reflect the population of the entire district, the Act only suggested that fifteen to eighteen percent of the pupil population should be expected to select desegregation schools under a free choice plan.

The following year, a federal court ordered the District of Columbia schools to develop a plan for busing willing black children and to terminate student grouping in inflexible, racially identifiable tracks.[42] The school board could not show that the cost of providing transportation justified its maintenance of overcrowded black schools. In affirming this decision, the Court of Appeals addressed the appropriateness of busing as a remedy when the many contributions to differences in educational opportunities were largely outside the schools' control. It concluded that transportation to level pupil density could be required "when the differentiating factor is as clear as overcrowding versus excess capacity."[43]

Pupil busing as a tool, and mathematical ratios as a standard to shape remedies, were upheld by the Supreme Court in its unanimous *Swann* decision.[44] This 1971 ruling clarified the extent of remedial powers available to federal courts. The nature of a constitutional violation determined the scope of the remedy to be fashioned.[45] Once a court identified vestiges of a dual system, as it had with regard to the Charlotte-Mecklenburg schools, it had great latitude to grant equitable relief. The justices endorsed the following remedies: 1) pairing school attendance zones and redesignating grade structures such that all students in the paired schools would attend both schools for certain grades; 2) clustering several attendance areas with subsequent reassignment of pupils among the schools; 3) busing to transport pupils between paired or clustered attendance areas in noncontiguous parts of the district; 4) reassigning personnel to integrate school faculty and staff; and 5) selecting future school construction sites and schools for closure to aid desegregation efforts.

The Court noted that busing was a "normal and accepted tool of educational policy," as evidenced by its historical importance in the consolidation movement and its prior role in maintaining dual school systems. Once pairing and clustering schools in distant parts of the city were said to be within remedial powers, busing was necessary. "Desegregation plans cannot be limited to the walk-in school."[46]

Maximum feasible desegregation was of essence, but the Court realized that the degree of actual integration depended upon the practicalities[47] of the situation. The Court endorsed busing as a remedy in the companion cases, *Swann* and *Davis*, but did not specify any particular degree of racial balance as a matter of substantive constitutional right. Racial percentages within each school did not have to reflect the composition of the system as a whole.[48] In fact, the continued existence of one-race schools was approved, as long as school authorities ensured that pupil assignments were "genuinely nondiscriminatory." The Court further recognized that communities did not remain demographically stable. Thus, year-by-year adjustments of racial compositions were not necessary once the affirmative duty to desegregate was acomplished and discrimination by official action had been eliminated.

Federal courts avoided imposing absolute quotas in desegregation plans. One-race schools or substantial racial imbalance, as in the case of extremely hazardous road conditions between noncontiguous attendance zones, have not been sufficient evidence of continuing *de jure* segregation.[49] Rather than applying the resulting imbalance as the sole criterion[50] of appropriate movement toward a unitary state, the underlying motivation in decisions of school authorities has been questioned. Courts' findings of *de jure* segregation have depended in large part on a showing of segregative intent in official actions to continue a formerly dual system or to aggravate conditions in states which never mandated segregation.

Desegregating Schools in Northern States

The obligation of formerly *de jure* dual systems to take positive steps to integrate did not initially affect school districts in the North. In contrast to separation of pupils by official state action, it was claimed that *de facto* segregation had resulted from actions of public or private agencies taken without the intent to discriminate, or from practices which had developed through customs and traditions. For example, in *Bell* the Seventh Circuit ruled that Gary, Indiana, school officials were not obligated "to change innocently arrived at school attendance districts" when increases and decreases in percentages of minorities reflected a shifting urban population.[51] Similarily, in *Deal* there was no duty to bus Cincinnati school children out of their neighborhoods for the sole purpose of alleviating racial imbalance.[52] The Supreme Court denied review of these early Northern decisions.

The tradition of neighborhood schools has been the paramount issue in desegregating Northern school systems. Despite the enhanced racial balance, critics claimed that busing endangered children's liberty and privacy interests, directed school resources from other educational goals and jeopardized parental involvement in schools. Benefits of neighborhood school policies included minimizing safety hazards for children who were able to walk or ride short distances, easing pupil placement through use of neutral, easily determined criteria, promoting better home-school communication and reducing costs of transportation and administration. Carter, a federal court judge, commented that concepts of local control and neighborhood attendance areas were so ingrained that total elimination of *de facto* separation would require "a revolutionary approach to school organization that is fiercely resisted."[53]

School boards and courts held to the ruling of the Fifth Circuit's interpretation of the previously referred to provisions of the Civil Rights Act. Busing as a remedy was limited to findings of illegal *de jure* segregation and could not be ordered in school systems based on bona fide neighborhood schools.[54] The federal courts reasoned in *Bell* and *Deal* that if the Board of Education had not caused racial imbalance, there was no constitutional duty to transfer pupils or to select school sites solely to alleviate that imbalance. School system attendance policies based upon "honestly and conscientiously constructed"[55] neighborhood school plans with no intention to segregate racial or ethnic groups were immune from court-ordered remedies. The courts placed a difficult-to-meet standard upon plaintiffs in Northern states to "expose that added quantum of discriminatory state action which deprives them of their constitutional right to freedom of choice.[56]

Housing patterns reflective of long standing customs and racial attitudes contributed substantially to school segregation. It was left to the federal courts to isolate the contribution of school board policies to segregation among neighborhoods and schools. The Seventh Circuit in 1968, for example, found an Illinois district to have discriminated in the assignment of teachers, selection of school sites and transportation of pupils. The district court order to bus pupils was valid within the Civil Rights Act. "This was done not to achieve racial balance, although that may be the result, but counteract the legacy left by the Board's history of discrimination."[57]

A 1970 New York decision illustrated that segregative actions by public officials in Northern states were an unconstitutional form of *de jure* segregation. A federal district court struck down a state law that prohibited assigning students, or establishing, reorganizing or maintaining school districts or attendance areas, for the purpose of achieving racial balance.[58] The stated legislative intent was to promote local control and to assure community acceptance of desegregation methods. The court responded, however, that the state failed to show that their purpose could not have been accomplished by alternate methods not involving racial distinctions.[59]

In 1973 the Supreme Court examined the discriminatory intent of school officials in Colorado, a state that had not at any time legislated separate schools.[60] The "purpose of intent to segregate" distinguished *de facto* from *de jure* segregation in the view of the Court in the *Keyes* decision. Plaintiffs[61] had to establish not only that segregated schooling existed in Denver, but also that it was brought about or maintained by intentional state action.

The district court had concluded in 1969 that the location of a new elementary school with "conscious knowledge" that it would be segregated, gerrymandered attendance zones to "aggravate and intensify the containment" of blacks, and the excessive use of mobile classrooms evidenced deliberate segregation.[62] It directed the Board to desegregate schools in one part of Denver, since the confinement of purposeful segregation in a single section of the city did not impose an affirmative duty to desegregate the entire school district. On appeal, the Supreme Court reversed this conclusion, stating that plaintiffs did not have to prove the "elements of *de jure* segregation as to each and every school or each and every student within the school system."[63] Evidence of intentional segregation in part of a system "is not devoid of probative value in assessing school authorities' intent" in the remainder. The Court had paved the way for system-wide remedies in the North.

In 1975 the First Circuit upheld pupil transportation in Boston to remedy segregation that had been perpetuated by "knowing and purposeful actions" of school authorities.[64] The desegregation plan proposed by the board permitted freedom of choice among schools and involved students in weekly integrated activities. The court rejected these limited approaches, as well as claims that the Equal Educational Opportunity Act of 1974 disallowed court-imposed busing until all appeals had been exhausted. Similar to the Fifth Circuit's response to the anti-busing provisions of the Civil Rights Act in *Jefferson*, this Court of Appeals held that the 1974 Act did not "affect counterefforts to eradicate *de jure* segregation."[65]

System-wide solutions were appropriate when it was shown that school boards could foresee potential effects of their actions on both school and residential segregation. In finding the Columbus and Dayton school boards to have ignored their affirmative duty to desegregate the dual systems that were in operation at the time of *Brown*, the High Court discussed relationships between school board decisions and racial compositions of neighborhoods. In *Columbus*, the Court found that school officials had initially caused and, after 1954, intentionally aggravated the isolation of an enclave of black schools on the east side of Columbus. It upheld a system-wide remedy, since actions having "forseeable and anticipated disparate impact"[66] were relevant in proving a forbidden purpose and encouraged the board to act with an integrative influence on residential areas. In 1985 the district court judge relinquished control over the desegregation plan, stating that Columbus was probably the most desegregated system in the nation.[67]

Similar underlying motivations and resultant effects of board decisions were upheld as circumstantial evidence in *Dayton*.[68] The district court had initially ordered a system-wide remedy to assure each school would reflect the racial mix of the entire district. The Supreme Court overturned this ruling as unjustifiably broad and established a new standard of "incremental segregative effect" for determining the appropriateness of a system-wide remedy. In essence, federal courts would have to show that there was an incremental effect of each constitutional violation on the racial composition of the total system.[69] On remand, the district court upheld the school board since neither racial imbalance, nor the policy of maintaining neighborhood schools, violated the equal protection clause.[70] This decision was reversed by the Sixth Circuit, based upon its finding of intentional segregative impact that "infected the entire Dayton public school system."[71] The Supreme Court agreed that foreseeable consequences of student and faculty assignment, continued use of optional attendance zones, school site selection and grade level structures of schools evidenced an impermissible intent and upheld the appropriateness of a system-wide remedy.[72]

More recently, the Ninth Circuit concluded that the cumulative impact of a California school board's policy decisions demonstrated clear segregative intent.[73] The board had not implemented state department suggestions for desegregating schools despite prior agreements to do so. It assigned faculty and staff on the basis of race and ethnicity, transported one third of the students but refused to bus to achieve integration, instituted double sessions to relieve overcrowded schools departed from its neighborhood plan to avoid transferring Anglo students to predominantly Hispanic schools and closed schools, located portable buildings and selected new sites in a manner to maintain ethnic imbalance. While many alternate policies could have contributed incrementally toward reduced imbalance, the court observed that in almost every instance, the board chose to "turn toward segregation" rather than away from it.[74]

Segregative intent also justified the Supreme Court's negation of citizens' decisions to limit pupil busing in *Seattle*.[75] Two thirds of Washington voters had approved a state constitutional amendment that would prohibit busing for purposes of improving racial balance but would permit pupil transportation for certain other purposes (e.g., special education, overcrowding, health and safety). Immediately affected were three districts, including Seattle, which had begun voluntary busing between attendance areas. These districts challenged the state-wide initiative, claiming a violation of the Fourteenth Amendment.

The trial court found the Seattle Plan to be particularly effective, as it had substantially reduced the number of racially imbalanced schools and the percentage of minority students in those schools with continued high imbalance.[76] Voters were aware that greater imbalance among schools would result, and the court concluded that a racially discriminatory purpose motivated conception and adoption of the initiative. In striking down the amendment, the district court cited its racially disproportionate impact and the sequence of events leading to its adoption.[77]

The Supreme Court affirmed these findings and agreed that the initiative prohibited busing for racial reasons only. The justices examined this impermissible racial classification in its relation to local boards' discretion in educational matters. The initiative placed power over desegregation and busing at the state level, thus differentiating the treatment of problems involving racial matters from other similar issues.[78]

The federal courts had established a clear standard that mandatory busing could be imposed only if *de jure* segregation was proved. Neighborhood school policies were permissible, provided that racial imbalance among schools was not the result of intentional discriminatory acts of school boards. Proving discriminatory intent was, however, a difficult task given instabilities in communities' racial composition. While *Keyes* had paved the way in the early 1970s for similar suits in Northern states, a heavy burden to prove intent was placed on plaintiffs.

One year after *Keyes*, for example, the Sixth Circuit affirmed a trial court's findings that segregation in the Grand Rapids schools had resulted from decisions of other public agencies and individual housing choices, rather than from segregative intent in neighborhood policies and facility construction.[79] Furthermore, the court stated that any reciprocal effect between segregated schools and residential patterns could not support a finding of *de jure* segregation on the part of school officials.

In 1976 the Supreme Court examined causes of annual fluctuations in racial compositions of Pasadena, California, schools and concluded that imbalances were largely outside the school board's control.[80] A district court had previously imposed a rigid standard that there could be no school "with a majority of any minority students."[81] Compliance had occurred only during the first year under the plan, and the district court in 1974 reiterated that the requirement was to be applied each year even though annual changes in the racial mix in schools were caused by external residential patterns.[82]

In reversing this standard, the High Court stated that the lower court had exceeded its authority. Shifts in the racial makeup of Pasadena schools reflected the normal pattern of people randomly moving into, out of and around the school system and could not be attributed to any segregative actions of school officials. The *Swann* standard was thus applied to Northern schools: Annual adjustments in schools' racial compositions were not essential once the affirmative duty to desegregate had been satisfied.

School boards that were otherwise innocent of segregative intent were not held liable for discriminatory housing practices of other public and private agencies. The Sixth Circuit used this reasoning in 1982 to affirm a lower court's dismissal of charges against the Youngstown and Akron public schools.[83] Plaintiffs were unable to demonstrate that discrimination was the motivating factor in past actions of either board. Imbalance reflected housing patterns, and to hold school officials responsible for racially isolated neighborhoods would place "too heavy a burden on the schools to remedy wrongs for which they are no more or less responsible than the plaintiffs, the courts, the churches, the Congress or other institutions."[84]

Neighborhood school policies were upheld by the Supreme Court in *Crawford*,[85] the 1982 companion case to *Seattle*. As in the state of Washington, an anti-busing proposition was ratified by California voters in 1979. This constitutional amendment prevented state courts from ordering pupil assignment or transportation "unless a federal court would be permitted under federal decisional law to impose that obligation" to remedy a violation of the Fourteenth Amendment. A state court denied a request by Los Angeles schools to end a previously ordered desegregation plan, holding that the proposition did not apply given its prior finding of *de jure* segregation. However, the California Court of Appeal found insufficient proof of intentional segregation and reversed the trial court's decision.[86]

Unlike its finding of discriminatory intent in *Seattle*, the Supreme Court upheld this California proposition and the ability of a state's voters to rescind remedies that exceed those which would be ordered for constitutional violations. The *Crawford* decision was based in part on states' authority to develop policy. An interpretation of the Fourteenth Amendment to restrict abilities of states to rescind such actions would be destructive to states' democratic processes and of their ability to experiment.[87] The court noted that school districts themselves remained free to adopt reassignment and busing plans.

Furthermore, California voters were not found to have been motivated by discriminatory purposes as was shown in *Seattle*. The proposition itself had legitimate, nondiscriminatory objectives and did not embody, expressly or implicitly, racial classification. "The benefit it seeks to confer—neighborhood schooling—is made available regardless of race in the discretion of school boards."[88] The Court held that when such a neutral policy as maintaining neighborhood schools has a disparate effect on minority groups, discriminatory intent must be proved in order to substantiate a Fourteenth Amendment violation. In a long dissenting opinion, Justice Marshall viewed the majority's decision as allowing "placement of yet another burden in the path of those seeking to counter the effects of nearly three centuries of racial prejudice."[89]

Several trends appeared in Northern desegregation cases. What was believed to be *de facto* segregation was often found to be caused by school board actions. This intentional *de jure* segregation could be remedied by system-wide pupil transportation. Nevertheless, plaintiffs had to prove discriminatory intent in decisions which caused incremental segregative effects. In many cases federal courts denied relief, since actions of other public and private agencies and housing decisions by individuals had for the most part resulted in residential and school segregation.

The recent *Crawford* decision evidenced another trend in attitudes of many educators, courts and federal administrative officials. Voters' rejection of busing reflected long standing beliefs that forced, pupil assignment diminished equal educational opportunities and that "integration is bad education."[90] Similar views of the federal administration, discussed later in this chapter, suggested a movement in the 1980s toward enhanced educational quality for all children regardless of racial balance.

Interdistrict Remedies

Public officials' actions have often affected pupil segregation in more than one school district. As with other efforts to resist the *Brown* mandate, states permitted formerly dual systems to divide, creating separate legal entities. More recently, independent districts have opposed interdistrict busing and consolidation. In each of these instances, segregative intent has played an important role in federal courts' determination of the appropriateness of multi-district remedies.

In 1972 the Supreme Court examined attempts to partition Southern school districts to isolate racial populations. In *Scotland Neck*, a North Carolina city school district severed itself from a largely black county system.[91] The county board was in the process of dismantling the former dual system, and the city feared substantial white flight if an independent district were not formed. The Fourth Circuit upheld the division of the county as a legitimate action of the state legislature to define boundaries of local governmental units.[92] In its reversal the High Court cited *Swann*: "If a state-imposed limitation on a school authority's discretion operates to inhibit or obstruct . . . the dis-establishment of a dual system, it must fall; state policy must give way when it operates to hinder vindication of federal constitutional guarantees."[93] Furthermore, the Court stated that white flight could not be accepted "as a reason for achieving anything less than complete uprooting of the dual public school system."[94]

Similarly, a Virginia city's schools separated from a county system after a court-ordered desegregation plan replaced an ineffective free choice policy. The Supreme Court prevented this reorganization in *Wright*, as the ultimate effect would have been to exacerbate the racial imbalance. The underlying motivation of school officials was evident. "Only when it became clear—15 years after our decision in *Brown*—that segregation in the county system was finally to be abolished, did Emporia attempt to take its children out of the county system."[95]

Federal courts' investigations in such cases depended upon the likelihood of increased racial imbalance between partitioned districts, segregation trends in other city school systems in the state and the timing of a division in relation to other desegregation efforts.[96] If creating new school districts continued or intensified racial separation, then state or local officials had violated their affirmative constitutional duty to end *de jure* segregation.

A higher concentration of minority students is generally found in cities, and more effective desegregation of urban schools in many cases would be achieved through interdistrict cooperation. Nevertheless, busing across district lines was a remedy available to courts only when *de jure* segregation was proved. The 1966 interpretation of the Civil Rights Act by the Fifth Circuit[97] permitted court-ordered interdistrict busing, if racially motivated actions of one or more districts ultimately affected segregation in other school systems.

Unlike the obvious discriminatory motivation in the *Scotland Neck* and *Wright* partitions of existing county systems, it was more difficult to prove discriminatory intent in a school board's desire to maintain historical boundaries. A New Jersey district's lines, for example, were upheld in 1971 under a reasonableness standard. The affirmative duty to integrate did not extend beyond long-standing boundaries. "If the drawing of district lines is reasonable and not intended to foster segregation, then that action satisfies the mandate of *Brown*. It cannot be said that school district lines based on municipal boundaries are unreasonable."[98]

Similar reasoning led to the Fourth Circuit's reversal of a 1972 court order[99] to merge Richmond with two suburban school districts. A greater degree of integration would have occurred under a metropolitan plan, but the Court of Appeals found no evidence that the boundaries were drawn originally or maintained over the years to perpetuate racial separation.[100] Rather than invidous state action intended to circumvent protected rights, it was other economic, political and social reasons which accounted for the schools' racial compositions. In the view of the Fourth Circuit, the adjacent counties could not realistically bear responsibility for school-related effects of inner city decay.

The Supreme Court reviewed similar claims of multi-district violations affecting Detroit schools in 1974.[101] It denied an interdistrict remedy but stated that federal courts could bridge district lines, if local boards' decisions conflicted with the Fourteenth Amendment. Lower courts had previously determined that desegregation of Detroit schools would be impossible without including the entire metropolitan area. Since school district boundaries themselves contributed to racial segregation, the district court ordered student busing between Detroit and its fifty-three suburban school districts. The Supreme Court reversed this directive in its often cited ***Milliken v. Bradley*** decision as a wholly impermissible remedy. The Court upheld local control of schools' operation and declared that district boundaries could not be treated as simple matters of political convenience.

Discriminatory intent had not been shown on the part of suburban districts, and thus their racial compositions could not be considered in formulating a decree. "[T]he constitutional principles applicable in school desegregation cases cannot vary in accordance with the size or population dispersal of the particular city, county or school district as compared with neighboring areas."[102] Interdistrict remedies only applied when racially discriminatory actions of the state or local districts were a substantial cause of interdistrict segregation, such as when district boundaries had been drawn deliberately on the basis of race or when a constitutional violation within one district produced a significant segregative effect on other districts.

In 1981 the Fifth Circuit applied *Milliken* to determine whether transfer programs that were instituted initially to maintain racial segregation between neighboring districts could lay the basis for interdistrict remedies. It concluded that present segregation had not substantially resulted from an Alabama district's transfer policy, and that interdistrict remedies applied only if "it is established that these transfer programs have a substantial, direct and *current* segregative effect."[103] Otherwise, school district lines were to be carefully observed.

This court also recognized substantial segregative effects related to transfer provisions and geographically overlapping attendance zones between two Louisiana school districts. Nevertheless, it upheld a lower court's denial of an interdistrict remedy,[104] as only "limited" constitutional violations had occurred. In absence of evidence of discriminatory intent in these policies, the court formulated an intradistrict solution that eliminated the overlapping zones and transfer option. The Fifth Circuit affirmed this confinement of school systems to respective boundaries stating, "*Milliken* teaches that interdistrict violation and interdistrict effect together must support interdistrict remedy."[105]

Federal courts have examined segregative intent in school districts' resistance to merge within larger political subdivisions. In *Indianapolis*, the Seventh Circuit agreed with legislative expansion of the city to include all of Marion County without requiring concurrent extension of the urban school district.[106] In all prior instances in Indiana, expansion of both political boundaries occurred simultaneously.

In 1973 a district court found a purposeful pattern of racial discrimination within the city schools. Believing that accelerated white flight would impede desegregation of urban schools under an "Indianapolis only plan," it ordered the state to prepare a metropolitan plan to include school districts beyond the city (and county) limits. This order requested either consolidation or pupil transfers to vindicate the right of black students to attend nonracially identifiable schools.[107] The Seventh Circuit based its 1974 reversal on *Milliken*, holding that adjoining districts had not committed any acts of *de jure* segregation within their respective borders or directed at the city system.[108] The district court then limited its order to busing black students from the city to the eight school districts within the recently expanded municipality.[109] The Supreme Court set aside this order and required a demonstration of discriminatory intent on the part of those districts within Marion county.[110]

In 1978 the Seventh Circuit asked the district court to examine whether discriminatory purposes were evident in decisions to expand the municipal boundary without concurrent extension of the school district and to restrict public housing to the original city limits.[111] Actions of the housing authority as approved by the County Development Commission demonstrated segregative intent, but county school districts had not engaged in discriminatory acts affecting the city schools. The district court thus designed a remedy to redress only the difference between the existing racial distribution and what it would have been without the limited constitutional violations.[112] While black students were bused to the eight suburban districts within the expanded municipality, school district lines were not extended.

In *Goldsboro*, the city board of education claimed that the county board's refusal to consolidate had perpetuated a racially discriminatory structure of public education. The Fourth Circuit agreed with the trial court's conclusion that the county's resistance to merger was logical, legitimate and nondiscriminatory. As in *Milliken* and *Indianapolis*, there was no interdistrict effect: "An independent school district which has not caused segregation in a neighboring independent district has no duty to rectify a racial balance in the other."[113]

A 1980 attempt to implicate districts surrounding Houston failed, and in 1982 the Fifth Circuit ruled that good faith efforts had desegregated city schools as effectively as could be expected.[114] A 1957 order eliminated overlapping attendance zones of the prior dual system, and the school board subsequently implemented voluntary transfers, paired elementary schools and magnet schools. In 1979 a district court ordered the Texas Education Agency to develop a Voluntary Interdistrict Education Plan to transfer Houston students to schools in Harris County. One year later the court denied a request for a more extensive interdistrict solution, since suburban districts had not caused substantial disparities in racial compositions.

The Fifth Circuit agreed that the substantial minority enrollment resulted from recent population shifts and held that further integration efforts within Houston to eliminate several one-race schools would be "impractical and detrimental to education."[115] If the racial composition were spread evenly throughout the district, over 70 percent of each school's enrollment would be black or Hispanic. Despite the rapidly expanding minority population within the city and the presence of "racially stratified" suburban schools, an interdistrict remedy was not ordered.

The trend evident in these decisions is the difficulty of proving discriminatory intent in public officials' actions that may promote segregation between an urban center and its surrounding school districts. Nevertheless, interdistrict remedies have been ordered or have occurred voluntarily under threat of litigation in many metropolitan areas. Busing between and consolidation of school districts have been the principal remedies available to federal courts when clear discriminatory intent to maintain segregated systems is demonstrated on the part of state or local public officials. Interdistrict remedies have been sustained on appeal when the solutions matched the scope of *de jure* segregation existing among school districts.[116]

The 1937 creation and subsequent exclusions of an all-black school district from consolidation proposals within St. Louis County, for example, were unconstitutional actions of the state of Missouri. In 1975 the Eighth Circuit cited the Supreme Court's pronouncement in *Milliken*—that drawing district lines on the basis of race could evidence illegal intent—to uphold the consolidation of three adjacent school districts.[117]

In other litigation involving school districts in St. Louis County, the courts ordered the development of a desegregation plan for the city schools and the voluntary transfer of pupils between urban and suburban districts.[118] In 1983 suburban districts agreed to pupil transfers in return for a promise by the city schools and the NAACP to discontinue litigation that might have resulted in merger. In approving the metropolitan plan, the judge found the state to be a primary constitutional violator in causing school segregation and commented that state policy must yield when it hinders vindication of constitutional guarantees. He ordered the state to fund voluntary interdistrict transfers and to share with the city board costs of magnet schools and other programs to strengthen the quality of urban schools.[119]

In the mid 1970s the Sixth Circuit upheld consolidation of the Louisville city and surrounding Jefferson County schools.[120] Unlike the Detroit situation in *Milliken*, school officials had exacerbated segregation by ignoring district lines. They were "crossed for the purpose and with the actual effect of segregating school children among the public schools of the county,"[121] enabling the continued operation of dual school systems. The interdistrict remedy removed these artificial impediments to effective desegregation of the county's schools.

Wilmington, Delaware, schools were also merged with surrounding districts. Interdependence between the city and suburban school districts existed for many years, beginning with Wilmington's operation of the only black school in the metropolitan area. Following *Brown*, state-subsidized transportation for city children to attend private schools in the suburbs perpetuated segregation. The district court held that actions of school officials throughout New Castle County, and provisions of Delaware's Educational Advancement Act that excluded Wilmington schools from eligibility for reorganization, caused significant interdistrict effects. Resulting segregation was a cooperative venture, with external public agencies contributing substantially to racial segregation in and around Wilmington, and the judge ordered merger of the city and surrounding school districts.[122] Disparities in racial composition were not the constitutional violation, but served as a signal of the continued dual system. The fact that birth rates and shifting population also contributed to imbalance did not relieve the state from its duty to desegregate.

Under the metropolitan plan, the court defined a desegregated school as one in which enrollments in each grade ranged between 10 and 35 percent minority. While the plan itself was affirmed on appeal, the Third Circuit rejected this criterion.[123] Fixed requirements were inconsistent with the Equal Educational Opportunity Act of 1974, which stated clearly that no particular balance was to be required in any school, grade or classroom.[124] Ultimately, a reorganized school district encompassed the metropolitan area.

A similar long history of segregation in the Little Rock metropolitan area culminated in a 1984 court order to merge the city schools with two suburban school districts. Prior to *Brown*, the urban district maintained the county's only accredited black high school, reflecting and reinforcing the concentration of minorities in the city. In 1956, the governor directed National Guardsmen to prevent black students from entering the desegregated high school. The following year the Supreme Court declared a state "pupil assignment law" that eased compulsory attendance requirements at racially mixed schools to be an impediment to desegregation.[125] The governor then closed all Little Rock high schools for the 1958-59 school year; this action was later found to be unconstitutional.[126] Desegregation proceeded slowly during the 1960s. White flight and a higher birth rate among blacks contributed to an increased concentration of minorities in the city schools. Black enrollment grew rapidly from 48 to 70 percent of the total between 1973-74 and 1983-84. In contrast, the suburban Pulaski County and North Little Rock school districts enrolled 22 and 36 percent minority students respectively in 1983.[127] In reviewing these disparities in enrollment, the district court examined the degree of interdistrict cooperation. Voluntary transfers and extension of city school district boundaries exacerbated segregation. While several attempts to consolidate had failed, cooperative instructional planning continued. The judge concluded that the schools were not separate and autonomous, and that the county district's behavior—its deannexations of land and refusal to consolidate—evidenced unconstitutional racial motives and significant interdistrict effects.[128]

Acts of other governmental agencies contributed to Little Rock residential segregation and, thus, to disparities in schools' racial compositions. Racially identifiable neighborhoods resulted from locating housing projects, "steering" potential home buyers to certain neighborhoods and allocating mortgage funds on a discriminatory basis. The judge observed that many governmental bodies "acting in concert with one another,"[129] and not solely individualized private housing choices, had caused patterns of residential and school segregation. Findings of discriminatory intent in actions of the two suburban school districts, the state and various other public and private agencies justified an interdistrict remedy. The judge ordered merger of the three districts and student busing to achieve a racial balance in schools within 25 percentage points of the composition of the total consolidated district.

These multi-district rulings indicate that, if segregative intent could be proved on the part of school district officials or other governmental agencies to have affected racial balance among school districts, then interdistrict busing or merger could be ordered. However, the strict standard established in *Milliken*, and the general reluctance of federal courts to subject autonomous school districts to interdistrict solutions, have largely frustrated attempts to impose these remedies.

Legislative and Executive Policy Development

Observers of desegregation decisions and resulting changes in practice agree that courts have not inspired reform in state and school policy with all deliberate speed. Progress has been made slowly, with constitutional interpretations changing more rapidly than schools.[130] Nevertheless, local boards and state and federal legislatures initiated policy to attain goals of desegregation and equal educational opportunity during the 1960s and 1970s.

The Civil Rights Act of 1964—enacted a full decade after *Brown*—has often been referred to as the greatest single blow to desegregation resistance. Title VI banned discrimination on the basis of race or national origin in federally assisted educational programs. More important in furthering desegregation efforts, the Act authorized the Department of Health, Education and Welfare to provide federal assistance for planning programs and training personnel, and to withhold funds for programs found to discriminate. It also empowered the U.S. Justice Department to file suits based upon complaints of private citizens.[131]

Subsequent enactment of many programs to promote equal educational opportunities—such as the Elementary and Secondary Education Act (ESEA) of 1965, the Emergency School Assistance Act (ESAA) of 1971, and the Equal Educational Opportunity Act of 1974—provided both needed funds for and federal commitment to the desegregation of America's schools. The strength of national priorities during these years yielded vastly increased federal and state financial assistance. Local school program planners eagerly accepted the funds, and district boards avoided potential punishments including withdrawal of funds and lawsuits to force compliance.

Despite substantial progress made toward improved education in racially balanced schools, the nation's leadership and governmental priorities shifted before these goals were fully accomplished. The National Education Association observed that the federal administration in the early 1980s backed by "well organized and powerfully regressive political forces," gave top priority to erasing school desegregation and civil rights advancement from the national agenda.[132] In the view of many critics, the "new federalism" espoused by the national government was the "ideological antithesis" of the social revolution of the late 1960s.[133]

In contrast to the categorical programs, were the 1981 Educational Consolidation and Improvement Act (ECIA) and concurrent stated directions for federal policy. The block grant approach of ECIA's Chapter II directed decision-making authority to states and school districts so that they might better respond to local priorities. The Acting Secretary of Education, in presenting the recommended Department of Education budget for the 1986 fiscal year, stated, "A number of currently funded categorical educational programs have either achieved their objectives, can be funded from other sources or do not otherwise require Federal involvement."[134] In addition to ten programs terminated in 1985, were another twenty-eight programs scheduled for elimination in 1986. Many of these programs would be eligible for continued funding under Chapter II block grants, if local boards wanted it.

This transference of program control does not suggest that education was perceived as less important at the federal level in the 1980s. Indeed, America's awakening to the condition of public elementary and secondary schooling through various reports[135] immersed federal and state legislative and educational agencies in yet another public policy revolution. Still, the emphasis of educational reform activities tended to divert attention from goals of equal educational opportunity to goals of excellence in education.

These national policy directives expressed through budget recommendations were consistent with statements by administrative officials. Observing that mandatory busing and racial quotas had failed to elicit public support and did not advance the overriding goal of equal educational opportunity, the administration declared in 1981 that it would promote only voluntary desegregation efforts.[136] Similarly, the Assistant U.S. Attorney General stated in 1984 that mandatory busing had clearly been counterproductive and should not be used in public schools in the future. He described the policy direction as an "inevitable aftermath of well-intentioned but mistaken social experimentation, most notably with quotas in affirmative action and with court-ordered busing for school desegregation."[137] Rather than mandatory pupil busing, "acceptable" remedies included voluntary student transfers, magnet schools, modest adjustments in attendance zones, enhanced curriculum requirements and improved training for teachers. Attempts to limit the Justice and Education departments' abilities to enforce desegregation plans involving busing have ranged from proposed constitutional amendments to riders on appropriation bills. The proposed Public School Civil Rights Act of 1985, for example, would have barred federal district and circuit courts from ordering busing for desegregation purposes.

School officials as well as black parents in many urban areas expressed agreement in the 1980s that it was as important to improve educational quality as to achieve racial balance. Rather than concentrate on attaining integration goals measured by racial balance and often achieved only by busing, efforts in cities addressed goals of effective education. Black leaders in many cities favored policies that promised more involvement in policy making, more equitable distribution of educational resources and application of research findings to ensure effective black schools.[138] For example, during the *Crawford* litigation, black and Hispanic leaders spoke against busing and called for quality education and community decision-making instead.[139] An attorney for the NAACP Legal Defense Fund indicated similar acceptance of shifting goals: "While ending racially isolated schools is crucial, quality education is a second choice, a settlement for whatever can be done to improve the quality of schooling for segregated minority children.[140]

More than racial balance is required to provide equal educational opportunity. Pupil assignment plans and court-ordered busing were important remedies in the 1970s as visible efforts to end *de jure* segregation. In the first several decades following *Brown*, it was assumed that racially balanced schools would provide minority children an equal opportunity for a superior education. Policy development in the 1980s centered on other approaches to this goal. With less concern for ratios per se and more attention on improved education for all students, the ideals stated in *Brown* might finally be attained.

Conclusions and Implications

School desegregation decisions and policy directions greatly affect the operation of public schools and the roles of school business officials. No longer do school managers proceed carelessly in areas of decision making that may result in unfair or arbitrary treatment of individuals or groups of employees or students. Actions of school boards and administrators are subject to close scrutiny when the equal protection clause, or a state or federal statute guaranteeing nondiscriminatory treatment may be implicated.

The Fourteenth Amendment to the Constitution at a first glance is quite clear. No persons, including students in public schools, may be denied their rights to fair and equal treatment. All persons are not, however, entitled to absolute equality with regard to services and benefits of public agencies. The amendment merely protects them from irrational treatment and unnecessary discrimination.[141] All state responsibilities must be exercised consistently with constitutional guarantees; this has been particularly true in courts' review of segregative policies and practices.

Actions to delay the *Brown* order to dismantle dual systems with all deliberate speed resulted in court-ordered remedial steps including pupil busing to balance racial compositions. The duty to end discriminatory policy and practice has been clear whether school boards once operated state-mandated dual systems or were shown to have intentionally discriminated in their official capacity. In reviewing district operations, courts are concerned with both the degree to which public officials' actions evidence an intent to segregate and the resulting effects of those decisions on schools' racial compositions. School officials' motivations in policy development may be quite legitimate, but the actions themselves may contribute to illegal discrimination. "The existence of a permissible purpose cannot sustain an action that has an impermissible effect."[142] Public school administrators must behave in ways to mitigate charges of purposeful discriminatory treatment and must take precautions to reverse segregative effects of school policy.

The adoption of policies and practices that will knowingly exacerbate pupil segregation is a primary indicator of impermissible motivation. It is a constitutional violation for school personnel to intentionally transport students, assign personnel and construct new schools in such a manner as to increase racial separation. The courts have stated repeatedly that actions taken with purposeful discriminatory intent violate the equal protection clause, resulting in imposition of affirmative remedial steps. On the other hand, if transferring pupils among schools of differing racial and ethnic compositions, altering attendance zones and creating magnet schools with unique programs to attract pupils from many neighborhoods and reorganizing grade levels and schools within or among districts positively contribute to desegregation, then remaining racial imbalance is not likely to trigger remedial measures.

Courts have encouraged flexibility and creativity in policy making. School officials must accept the challenge to develop realistic and effective responses to directives from courts, legislatures and other governmental agencies. Solutions are implemented most successfully when school personnel and board members involve students, parents and attorneys in policy development. Inviting groups who are most directly affected by desegregation decisions to contribute ideas and seeking the advise of legal counsel in all stages of policy formulation should mitigate potential litigation once changes in school operations are implemented.

Ineffective policies must be examined carefully and, if necessary, be revised to demonstrate good faith efforts to achieve as great a degree of racial mix as possible. Freedom of choice plans of the 1960s were, for example, only superficial responses to *Brown*. The effectiveness, rather than the concept, of free choice was questioned. Successful open enrollment plans, voluntary transfers and magnet schools illustrate that free movement of pupils among neighborhoods is allowable to reduce isolation of racial and ethnic groups.

While racial balance is a goal, the practicalities of district geography and other conditions often dictate the maintenance of substantially one-race schools. The Supreme Court has not upheld lower courts' imposition of particular racial balances in schools, grades or classrooms. Percentages merely serve as a starting point for formulating remedies and for determining the effectiveness of desegregation plans. The primary concern of courts is the pattern of decisions rendered by the board to affect the distribution of racial groups throughout the system, rather than the balance attained.

Neighborhood school policies often run counter to districts' efforts to balance racial compositions. Nevertheless, the strong tradition of neighborhood schools, as well as disadvantages of busing in terms of disrupted education and increased operational expenses, argue against elaborate transportation plans. Busing is an extraordinary remedy available to courts only when appreciable results are anticipated and when other alternatives have been exhausted.[143]

Bona fide neighborhood school policies can be maintained. However, when school boards have drawn attendance zones with purposeful segregative intent, busing may be ordered as a remedy. Furthermore, busing for other purposes, e.g. relieving overcrowded schools of consolidating special education programs, may provide proof of differential treatment. This reasoning contributed to recent findings of discriminatory intent when the Supreme Court reversed the Washington anti-busing initiative,[144] and when the Ninth Circuit found one-third of San Jose pupils to be bused for reasons other than to integrate schools.[145]

Desegregation plans are costly to school districts. The obvious expenses of purchasing buses and hiring additional drivers are compounded by increased costs for mapping attendance zones, meeting with varied community groups and orienting school staff. Planning and implementing extensive student busing to integrate schools intensify problems inherent in school business administration and strain educational resources. Yet, the inconvenience of desegregation plans, the burden of remedies on pupils and employees and the expense of implementation are insufficient defenses against the failure to undo past discriminatory actions.

The cost of implementing a proposed plan[146] depends upon the number of students to be transported, the time period over which the plan is to be phased in and the number of buses to be added. Additional expenses for housing and maintaining the expanded fleet, and for salaries, training and supervision must be anticipated. Costs of effective transportation plans may vary greatly over time as shifting demographics and changing educational programs alter attendance areas and bus routes. Flexible transportation policies should avert claims of intentionally segregated schools maintained through rigid attendance zones. Periodic and systematic assessment of transportation policy is an essential element of broader planning cycles.[147] District planners must review community and school demographics regularly to identify economic and racial group isolation reflective of school attendance and transportation policies.

The selection and training of school bus drivers are important components of transportation management. Care should be taken to assign those drivers who are most supportive of busing as a means to achieve equal educational opportunities to routes between attendance areas. In addition to providing training programs on the safe operation of vehicles, the transportation supervisor should ensure that drivers understand the role of busing in promoting school desegregation and should assist them in handling discipline and other problems inherent in extended bus routes.

Planning for construction and use of school facilities is another responsibility of school business administrators for which discrimination is of concern. School facility planning has aggravated student separation, contributing to findings of discriminatory intent. The Supreme Court cautioned school officials to ensure that "future school construction and abandonment are not used and do not serve to perpetuate or re-establish"[148] segregated school systems. Courts have examined facility construction and closure plans relative to effects on racial balance and have required boards to locate facilities between segregated residential areas of school districts. They have also used decisions to maintain double sessions and to locate portable buildings to relieve overcrowded conditions in one school while another is underused as proof of discrimination.

Local community control over desegregation policy and remedies is preferable to more complex and disruptive interdistrict solutions. The fact that interdistrict violations may have occurred does not necessarily require an interdistrict remedy. For example, in many of the cases reviewed, racially identifiable residential patterns alone were not sufficient to warrant interdistrict remedies, as school boards could not be held responsible for actions of other public and private agencies. "That there has been housing discrimination . . . is deplorable, but a school case, like a vehicle, can carry only a limited amount of baggage."[149]

Interdistrict remedies may be ordered when intentional segregative acts on the part of one district or public agency affect operations in another school unit, such as in the case of intentionally drawn district boundaries to separate racial groups. If school boards and other state and local officials act in concert with one another[150] to exacerbate interdistrict segregation, then courts may impose cross-district busing or the consolidation of school districts. The fact that population shifts, birth rates and other non-school factors also contribute to racial imbalances among districts may not relieve school districts and states from the burden to desegregate. The very recent Little Rock merger illustrates the appropriateness of interdistrict remedies when an arm of the state has contributed to segregation by purposeful, racially discriminatory use of zoning laws, placement of public housing projects and encouragement of practices of red lining home mortgages or steering home buyers to certain sections of metropolitan areas.[151]

Racially identifiable school districts which resist merger may be ordered to consolidate. The crucial test applied by courts is whether past actions of school boards and other agencies evidenced discriminatory intent and caused segregation between districts to persist. On the other hand, a voluntary merger of school systems, whether currently under court-ordered desegregation plans or not, would constitute official action toward greater desegregation. A federal court would find the overall racial composition of the consolidated system to be more favorable, and would probably not mandate busing throughout the new system. Without demonstration of segregative intent by the newly constituted board, and with positive actions to deliver education in a nondiscriminatory fashion, further litigation to compel assignment and busing of pupils would be unsuccessful.

In summary, to be consistent with federal law, differential treatment of minority students and employees must be based upon legitimate needs of school operations, and not upon race or ethnic origin. School officials should take all actions possible to alleviate racial imbalance regardless of the cause, rather than to inhibit changes in policy and practice that would counter student segregation.

School business administrators have opportunities to promote nondiscrimination as they plan program changes and interact with board members, other school personnel and community leaders. For example, they contribute to: the determination of student attendance zones and bus routes; the selection of sites for future school construction projects and buildings to be closed; the identification of projects for upgrading school plants in all areas of the district; the hiring and dismissal of employees; the development of guidelines for effective district and building operation; and the reorganization of grade levels and consolidation of schools and school districts. In each of these important responsibilities, school business administrators must consider the implications of policy and practice upon school efforts to eliminate segregation at the same time they strive to provide quality education for all students.

NOTES

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5. W. Garms, J. Guthrie & L. Pierce, *School Finance: The Economics and Politics of Public Education*, (1978), 27.

6. *Brown v. Board of Educ.*, 347 U.S. 483 (1954).

7. *Plessy v. Ferguson*, 163 U.S. 537 (1896).

8. Id. at 557.

9. *Cumming v. Richmond County Board of Educ.*, 175 U.S. 528 (1899).

10. *Berea College v. Kentucky*, 211 U.S. 45 (1908).

11. *Gong Lum v. Rice*, 275 U.S. 78 (1927).

12. *University of Maryland v. Murray*, 169 Md. 478, 182 A. 590 (Md. Court of Appeals, 1935).

13. *Missouri ex rel. Gaines v. Canada*, 305 U.S. 337 (1938).

14. *Sweatt v. Painter*, 339 U.S. 629 (1950).

15. *McLaurin v. Oklahoma State Regents for Higher Educ.*, 339 U.S. 637, 642 (1950).

16. D.L., Kirp & M.G. Yudof, *Educational Policy and the Law: Cases and Materials* (1974), 291.

17. *Brown*, 347 U.S. at 495.

18. Id. at 495.

19. Kirp & Yudof, supra note 17, at 304.

20. *Brown v. Board of Educ.*, 349 U.S. 294, 299 (1955).

21. M.W. LaMorte, *School Law: Cases and Concepts* (1982) 289.

22. *United States v. Jefferson County Board of Educ.*, 372 F. 2d 836 (5th Cir. 1966).

23. *Briggs v. Elliott*, 132 F. Supp. 776, 777 (E.D.S.C. 1955).

24. Carter, A Reassessment of Brown v. Board in Shades of Brown: New Perspectives on School Desegregation (Bell ed. 1980), at 24.

25. *Cooper v. Aaron*, 358 U.S. 1 (1958).

26. *James v. Almond*, 170 F. Supp. 331 (D.C. Va. 1959).

27. *Goss v. Board of Educ. of Knoxville*, 373 U.S. 683 (1963).

28. *Clemons v. Board*, 356 U.S. 1006 (1956), and *Monroe v. Board of Commissioners, City of Jackson, Tennessee*, 390 U.S. 936 (1967).

29. *Harrison v. Day*, 106 S.E. 2d 636 (Supreme Court of Appeals, Va. 1959). *Hall v. St. Helena Parish School Board*, 197 F. Supp. 649 (E.D. La. 1961), and *Pettaway v. County School Board of Surry County, Virginia*, 230 F. Supp. 480 (E.D. Va. 1964).

30. *Griffin v. County School Board of Prince Edward County*, 377 U.S. 218, 231 (1964).

31. *Green v. County School Board of New Kent County, Virginia*, 391 U.S. 430 (1968).

32. Id. at 439.

33. *Alexander v. Holmes*, 396 U.S. 19,20 (1969).

34. Kirp & Yudof, supra note 17, at 353.

35. K. Alexander and M.D. Alexander, *American Public School Law* (2nd ed. 1985), 432.

36. *Franklin v. Barbour County Board of Educ.*,259 F. Supp. 545 (M.D. Ala. 1966).

37. *Kelly v. Altheimer, Arkansas, Public School District No. 22*, 378 F. 2d 483 (8th Cir, 1967).

38. 42 U.S.C. 2000c(b).

39. 42 U.S.C. 2000c-6.

40. *Jefferson*, 372 F. 2d 836.

41. Id. at 886-87.

42. *Hobson v. Hansen*, 269 F. Supp. 401 (D. D.C. 1967).

43. *Smuck v. Hobson*, 408 F. 2d 175, 185 (D.C. Cir. 1969).

44. *Swann v. Charlotte-Mecklenburg Board of Educ.* 402 U.S. 1 (1971).

45. Id. at 16.

46. Id. at 30.

47. *Davis v. Board of School Commissioners of Mobile County*, 402 U.S. 33, 37 (1971).

48. *Swann*, 402 U.S. at 24. See also, *Spencer v. Kugler*, 326 F. Supp. 1235 (D.C. N.J. 1971), aff'd, 404 U.S. 1027 (1972), and *Morales v. Shannon*, 516 F. 2d 411 (5th Cir. 1975).

49. See, e.g., *Winston-Salem/Forsyth County Board of Educ. v. Scott*, 404 U.S. 1221 (1971), *United States v. Texas Educ. Agency*, 532 F. 2d 380 (5th Cir. 1976), and *Stout v. Jefferson County Board of Educ.* 537 F. 2d 800 (5th Cir. 1976).

50. See, *Wright v. Council of the City of Emporia*, 407 U.S. 451, 465 (1972), and discussion by Alexander & Alexander, supra note 36, at 432.

51. *Bell v. School City of Gary*, 324 F. 2d 209 (7th Cir. 1963), cert. denied, 377 U.S. 924 (1964).

52. *Deal v. Cincinnati Board of Educ.*,369 F. 2d 55 (6th Cir, 1966), cert. denied, 389 U.S. 847 (1967).

53. *Carter*, supra note 25, at 24.

54. *Jefferson*, 372 F. 2d at 886.

55. *Bell*, 324 F. 2d at 213.

56. *Deal*, 369 F. 2d at 63.

57. *United States v. School District 151 of Cook County, Illinois*, 404 F. 2d 1125, 1130 (7th Cir. 1968).

58. *Lee v. Nyquist*, 318 F. Supp. 710, (W.D.N.Y. 1970), aff'd, 402 U.S. 935 (1971).

59. Id. at 720.

60. *Keyes v. School District No. 1, Denver*, 413 U.S. 189 (1973).

61. The Court found similar discriminatory treatment with regard to the education of Hispanic and black students, and permitted the plaintiffs to combine minority groups to determine racial balance. See also, *Cisneros v. Corpus Christi Independent School District*, 324 F. Supp. 599 (S.D. Texas 1970), and *Soria v. Oxnard School District Board of Trustees*, 488 F. 2d 579 (9th Cir. 1973).

62. *Keyes v. School District No. 1, Denver*, 303 F. Supp. 279, 285; 303 F. Supp. 289 (D. Colo. 1969).

63. *Keyes*, 413 U.S. at 200.

64. *Morgan v. Kerrigan*, 523 F. 2d 917 (1st Cir. 1975).

65. Id. at 920.

66. *Columbus Board of Educ. v. Penick*, 443 U.S. 449, 465 (1979).

67. "Federal Judge Closes Columbus, Ohio, Desegregation Case," *Education Week*, (May 15, 1985), 2.

68. *Dayton Board of Educ. v. Brinkman*, 443 U.S. 526 (1979).

69. Id. at 406 (1977).

70. *Brinkman v. Gilligan*, 446 F. Supp. 1232 (S.D. Ohio 1977).

71. *Brinkman*, 583 F. 2d 243, 252 (6th Cir. 1978).

72. *Dayton*, 443 U.S. 526.

73. *Diaz v. San Jose Unified School District*, 733 F. 2d 660 (9th Cir. 1984).

74. Id. at 675.

75. *Seattle School District No. 1 v. Washington*, 458 U.S. (1982).

76. *Seattle*, 473 F. Supp. 996, 1007 (W.D. Wash. 1979).

77. Id. at 1013.

78. *Seattle*, 458 U.S. at 479-80. See also, *Lee v. Nyquist*, 318 F. Supp. at 718.

79. *Higgins v. Board of Educ., of the City of Grand Rapids*, 508 F. 2d 779 (6th Cir. 1974).

80. *Pasadena City Board of Educ. v. Spangler*, 427 U.S. 424 (1976).

81. *Spangler v. Pasadena City Board of Educ.*, 311 F. Supp. 501, 505 (C. D. Cal. 1970).

82. *Spangler*, 375 F. Supp. 1304 (C.D. Cal. 1974).

83. *Alexander v. Youngstown Board of Educ.*, 675 F. 2d 787 (6th Cir. 1982), and *Bell v. Board of Educ., Akron Public Schools*, 683 F. 2d 963 (6th Cir. 1982).

84. *Bell*, 683 F. 2d at 968.

85. *Crawford v. Board of Educ.*, 458 U.S. 527 (1982).

86. *Crawford v. Board of Educ.*, 170 Cal. Rptr. 495 (Cal. Ct. App. 1981).

87. *Crawford*, 458 U.S. at 539.

88. Id. at 537.

89. Id. at 562-63.

90. Doyle, "Way Out West in Dixie: The Los Angeles Desegregation of Schools," 20 *Integrateducation* (January-April, 1982), 2-6.

91. *United States v. Scotland Neck City Board of Educ.*, 407 U.S. 484 (1972).

92. *Scotland Neck*, 442 F. 2d 575, 583 (4th Cir. 1971).

93. *Swann*, 402 U.S. at 45.

94. *Scotland Neck*, 407 U.S. at 491.

95. *Wright*, 407 U.S. at 459.

96. Alexander & Alexander, supra note 36, at 439; see also, *Lee v. Macon Board of Educ.*, 448 F. 2d 746 (5th Cir. 1971).

97. *Jefferson*, 372 F. 2d 836.

98. *Spencer*, 326 F. Supp. at 1241.

99. *Bradley v. School Board of the City of Richmond*, 338 F. Supp. 67 (E.D. Va. 1972).

100. *Richmond*, 462 F. 2d 1058 (4th Cir. 1972), aff'd by an equally divided Court, 412 U.S. 92 (1973).

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102. Id. at 747.

103. *Lee v. Lee County Board of Educ.*, 639 F. 2d 1243, 1260 (5th Cir. 1981).

104. *Andrews v. Moore*, 513 F. Supp. 375 (W.D. La. 1980).

105. *Andrews v. Moore*, 648 F. 2d 959, 969 (5th Cir. 1981).

106. *United States v. Board of School Commissioners of Indianapolis*, 573 F. 2d 400 (7th Cir. 1978).

107. *Indianapolis*, 368 F. Supp. 1191, 1193 (S.D. Ind. 1973).

108. *Indianapolis*, 503 F. 2d 68 (7th Cir. 1974), cert. denied, 421 U.S. 929 (1975).

109. *Indianapolis*, 419 F. Supp. 180 (S.D. Ind. 1975).

110. *Indianapolis*, 429 U.S. 1068 (1976).

111. *Indianapolis*, 573 F. 2d 400 (7th Cir. 1978), cert. denied, 439 U.S. 824 (1978).

112. *Indianapolis*, 506 F. Supp. 657, 663 (S.D. Ind. 1979).

113. *Goldsboro City Board of Educ. v. Wayne County Board of Educ.*, 745 F. 2d 324, 328 (4th Cir. 1984).

114. *Ross v. Houston Indep. School Dist.*, 699 F. 2d 218 (5th Cir. 1983).

115. Id. at 227.

116. W. Valente, *Law in the Schools* (1980), 312.

117. *United States v. Missouri*, 515 F. 2d 1365 (8th Cir. 1975).

118. See *Adams v. United States*, 620 F. 2d 1277 (8th Cir. 1980), *cert. denied*, 449 U.S. 826, 1980; and *Liddell v. Board of Educ.*, 491 F. Supp. 351 (E.D. Mo. 1980), aff'd, 667 F. 2d 643 (8th Cir. 1981), *cert. denied*, 454 U.S. 1081 (1981).

119. *Liddell v. Board of Educ. of the City of St. Louis*, 567 F. Supp. 1037, 1052 (E.D. Mo. 1983).

120. *Newberg Area Council v. Board of Educ. of Jefferson County, Kentucky*, 510 F. 2d 1359 (6th Cir. 1974).

121. Id. at 1361.

122. *Evans v. Buchanan*, 393 F. Supp. 428 (D. Del. 1975) and 416 F. Supp. 328 (D. Del. 1976), appeal of order dismissed, 423 U.S. 1080 (1976).

123. *Evans v. Buchanan*, 555 F. 2d 373, 380 (3rd Cir. 1977), cert. denied, 434 U.S. 880 (1977).

124. 20 U.S.C. 1701 (a).

125. *Cooper*, 358 U.S. 1.

126. *Aaron v. McKinley*, 173 F. Supp. 944 (E. D. Ark. 1959).

127. *Little Rock School Dist. v. Pulaski County Special School Dist. No. 1*, 584 F. Supp. 328 (E. D. Ark. 1984).

128. Id. at 341.

129. *Hills v. Gautreaux*, 425 U.S. 284, 352 (1975).

130. Harris, "Desegregation Litigation in the Aftermath of Brown: Overcoming the Inertia of the Status Quo," in *Educators and the Law: Current Trends and Issues* ed. Thomas, Cambron-McCabe & McCarthy, (1983), 47.

131. 42 U.S.C. 2000.

132. *Three Cities That Are Making Desegregation Work*, supra note 3, at 12.

133. See, e.g., Barnett, "Equity, Technology, and Educational Policy," 8 *The Urban League Review* (Summer 1984), 57-66.

134. Jones, "Statement by the Acting Secretary of Education on the Fiscal Year 1986 Budget," *United States Department of Education NEWS* (February 4, 1985).

135. See, e.g., *A Nation at Risk: The Imperative for Educational Reform*, National Commission on Excellence in Education (1983); and *Action for Excellence*, Task Force on Education for Economic Growth of the Education Commission of the States (1983).

136. "Images of Change: The 30 Years Since the Brown Decision," *Education Week* (June 6, 1984), 26.

137. "Reagan in Review: A Look at Federal Education Policy, 1980-84," *Education Daily*, (October 18, 1984), 5, 8.

138. Bell, "A Model Alternative Desegregation Plan" in *Shades of Brown: New Perspectives on School Desegregation*, ed. Bell, (1980).

139. Doyle, supra note 91, at 2.

140. "The Super School: Pressures on Public Education in the '80s," *Education Daily* (February 26, 1985), 8.

141. Valente, supra note 116, at 305.

142. *Evans*, 555 F. 2d at 380.

143. L. Peterson, R. Rossmiller & M. Volz, *The Law and Public School Operation* (1978), 392.

144. *Seattle*, 458 U.S. 457.

145. *Diaz*, 733 F. 2d 660.

146. See discussion of the important elements and costs of student transportation plans presented by L. Hughes, W. Gordon, & L. Hillman, *Desegregation America's Schools* (1980), 109-120.

147. Candoli, supra note 1, at 318.

148. *Swann*, 402 U.S. at 21.

149. *Bradley*, 462 F. 2d at 1066.

150. *Hills*, 425 U.S. at 352.

151. *Little Rock*, 584 F. Supp. 328.

17

Legal Liabilities of Administrators

Julie Underwood

A common trend in every field of education is increased litigation. The phrase "legalization of education" is commonly used. Many educators seem to believe that attorneys instead of educators are in control of the schools. Although this might have been true in the 1960s and 1970s, it does not appear to be the trend for the 1980s.

Education law during the late 1960s and early 1970s primarily involved philosophical issues. The courts were asked to address certain social issues; they accepted this task and discussed the concepts of equality and liberty, and officially recognized the constitutional rights of students. During this period, individuals asked the courts to solve perceived social injustices. Education law was focused in the courts and involved litigation between and among teachers, students, administrators and parents.

The next phase of education law was played out in a different arena. Throughout the 1970s education experienced a wave of impact mainly from the U.S. Congress. Before this time, federal involvement in education had been relatively minimal. But the same hand that started granting funds began issuing regulations. During this time, public school administrators encountered the Lau regulations, the Buckley Amendment, Title IX, Public Law 94-142 as well as more general type of regulations, such as OSHA. The legislation was primarily enacted to ensure the rights which had been defined earlier by the courts.

During the first two eras under discussion, there were many important decisions made by non-educators. In the 1960s, the courts made many major policy decisions and in the 1970s Congress and federal administrative agencies made as many implementation decisions. Now, in the 1980s it appears the major substance of education law will be internal issues involving policies and the educational process: personnel management, civil rights, negligence and interpretation and application of school rules.

The cases of this era indicate an increased willingness to allow the local school districts autonomy on these issues unless there is a constitutional or statutory violation. This chapter presents legal issues which are not discussed in other chapters of this text. It covers areas which would most likely interest school business administrators. It is in no way exhaustive of issues in education law. Topics such as corporal punishment are not discussed as the direct import on school business administrators is minimal. The issues within the chapter include: civil rights, negligence, contracts, criminal liability, tuition and fees and students' records.

Torts

Civil Rights Liability

Recovery for a violation of a person's federal constitutional or statutory rights is possible under the Civil Rights Act of 1871.[1] The basic concept extends personal liability to public officials who violate the federal statutory or constitutional rights of an individual, such as a student or teacher. It reads:

> Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State or Territory, subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, set in equity, or other proper proceeding for redress.[2]

The word "person" in Section 1983 has been interpreted to include local governments or institutions,[3] including school districts.[4] A school board is not immune from liability under the Eleventh Amendment which protects states as governmental entities from suit in federal courts.[5] Thus, the person who has been damaged by policies or practices which violate federally protected rights can sue the individuals and the institution involved in a Section 1983 action.

Immunity. The *Wood v. Strickland*[6] decision helped to clarify the reach of Section 1983 with respect to school board members and their liability. The Court's holding made it possible for students to sue school board members for a violation of federal rights. For the first time, the Supreme Court addressed the degree of protection that local school board members have under Section 1983 as well as the conditions under which they may lose their immunity. *Wood* enunciated a new standard of immunity: qualified good faith immunity. This limited immunity provides some degree of security. Under *Wood* a board member can be held liable only for violation of constitutional rights for:

- Knowingly violating a student's constitutional rights. Board members are legally bound to make decisions consistent with current law; they cannot disregard what is recognized as settled law.
- Unknowingly violating a student's constitutional rights. That is no excuse if a school board member should have known what the law was on a given subject. Ignorance of settled constitutional law is no more excuse than intentional violation of what is settled law. There is a burden on school board members to know what current law is.
- Acting on the basis of malice. A board member will lose any immunity he might otherwise have had if he sets out intentionally to harm a student, acts out of vindictiveness or decides an issue on a spiteful motive.[7]

This good faith immunity exemption can be generalized to school administrators acting in their official capacity. "Although the *Wood* holding is limited to the specific context of school discipline, the court has read *Wood* as equally applicable to officials where actions affect the constitutional rights of teachers and other school personnel."[8]

Remedies. Section 1983 clearly provides that a litigant may bring suit under the Act for compensatory damages as well as for equitable relief. Generally, actual damages and attorneys fees are awarded to a prevailing party in a Section 1983 action.

To receive any award some damages must be shown. In *Carey v. Piphus*[9] the U.S. Supreme Court dealt with an issue of nominal actual damages. The case involved two students who were suspended from school for allegedly smoking marijuana on the school grounds. The trial court ruled that the students were denied procedural due process. The court stated the plaintiffs were technically entitled to damages yet it dismissed the claim as none were shown to exist. On appeal the Seventh Circuit Court of Appeals reversed, stating that the plaintiffs were entitled to substantial nonpunitive damages without proof of actual injury, because the suspensions were irrelevant. The Supreme Court ruled that in absence of proof concerning actual damages the students were entitled only to nominal damages, which the Court set at one dollar. Consistently, court decisions concerning Section 1983 have also allowed for the compensation of mental stress and emotional anguish, when proof of actual damages is also shown.

In addition to damages, attorneys' fees are normally awarded to the prevailing party in a Section 1983 action.[10] There is no definite scale to set attorneys' fees in these actions. The amount of the award is left to the discretion of the court, which makes a reasonable award for time spent on the litigation. Generally, such factors as time, complexity, size of the award and expertise of the attorney are taken into consideration.[11] In *Hensley v. Eckerhart*[12] the U.S. Supreme Court found that a court could determine reasonable attorneys' fees by multiplying the number of hours reasonably expended on the litigation by a reasonable hourly rate. Thus, the actual awards vary from case to case.

What may be considered work on the litigation may vary from case to case also. The question usually presents itself in terms of how much work the attorney be compensated for before the case was actually filed in court. In *Webb v. County Board of Education* the U.S. Supreme Court ruled that Section 1983 generally does not permit a court to award fees to a prevailing party for costs incurred for legal services in an optional state administrative proceeding.[13] However, in *New York Gaslight v. Carey*[14] the Supreme Court held that attorney's fees for state administrative hearings under Title VII could be awarded under Section 1983. The difference between the two situations is that in the latter the administrative hearing process is mandatory and is part of the Section 1983 litigation. In the former, the 1983 action could have been initiated without going through the administrative process; therefore, the administrative process is not considered part of the litigation.

Summary. Civil rights actions are probably the fastest growing category of litigation in education law today. The *1979 Yearbook of School Law*[15] reported a 1,000 percent increase for the previous fifty years in civil rights litigation. These actions are used to vindicate the infringement of an individual's federal constitutional or statutory rights. School officials, however, must realize that if they are acting in good faith they cannot be held liable even if later it is found that the individual's civil rights were violated. The decision whether to pursue actions into litigation may be colored by the knowledge that if the opposing party wins, the school district may be faced with paying its attorney's fees. Thus, it may be wise for administrators to settle out of court those situations where they think it is likely that they would not prevail. What the district may win is offset by the risk that it will also have to pay the opponent's attorney's fees. The best defense against Civil Rights actions is to be knowledgeable of the current state of the law and make decisions consistent with it.

Negligence

The most common tort action against teachers and school administrators is negligence. Negligence is conduct falling below a legally established standard of care, resulting in injury to another person. It is failure to exercise due care when subjecting another to a risk or danger which causes harm. There are four elements of negligence, all of which must be present before liability can be found: 1) duty, 2) breach of duty, 3) proximate cause and 4) actual injuries.[16]

Duty. Before a person can be held liable for another's injury, it must be proven that he or she had responsibility for or duty to the injured person. A duty can arise from statutes, contracts or common sense. The courts have identified three areas of duties for educators: adequate supervision, proper instruction and maintenance of a safe environment. A distinct duty must be found to hold each individual liable for a negligence action. Thus, for each party sued some duty or connection between the injured party and the person being sued must be found. For example, the administrative duty to maintain safe equipment would include a duty to purchase appropriate and safe equipment.

Probably the most common negligence action against school personnel involves a student who is injured and claims the injury was caused by the school's or an individual's failure to adequately supervise students. Clearly, when students are in school the school personnel have a duty to supervise them. The element of negligence is rarely in dispute when students are on school grounds during school hours, but often comes into play when students are off school grounds or on school grounds before or after school hours.

In *Foster v. Houston General Ins.*[17] a teenage, educable, mentally retarded child was one of a group of boys who played on the school's special olympics basketball team. The team practiced at a nearby school facility, requiring the students to walk three blocks in heavy traffic. One teacher was supervising the first trip between the schools. One student dashed into the street against the light and was killed. The teacher and the school were sued for negligently supervising the students. The court found that the school had a duty to provide an adequate number of supervisors to accompany the team on their way to practice and to choose the safest possible route. However, in *Plesnicar v. Kovach*[18] no liability was found when a student was struck and killed by a car after participating in extracurricular activities. The court found that the school had no duty to provide a crossing guard or bus service for students following extracurricular activities.

Breach. Once a duty has been established or undertaken, it must be exercised reasonably. This is one of the most commonly disputed elements in a negligence action. To be liable for the injury the complaining party must show that the duty was not carried out reasonably, that a person breached the duty. This standard of reasonableness varies from circumstance to circumstance; what may be negligence in one situation may be a reasonable exercise of one's duty in another. This reasonableness standard has been personified by the "reasonable person." The reasonable person is a fictitious person who is prudent and uses ordinary care and skill under the same or similar circumstances.[19] The reasonable person also has the same superior skill or knowledge as an actor has or makes others believe he has. Educators hold themselves out to the public as possessing superior skills and understanding of educational processes. The professional's required conduct is that of a prudent professional under the same or similar circumstances. School business administrators are specially trained professionals; they are held to a standard of a professional in the field of business when carrying out their duties. In sum, to determine if the duty has been breached, one asks, what would the reasonable person do under the same or similar circumstances? If the actions of the actor fall short of this, the duty has been breached.

A school board in Louisiana was held liable for a $70,000 damage award in *Lawrence v. Granty Parish School Bd.*[20] A student was injured by a power saw which was stored in the back of the class and was used without authority by the injured student when the teacher was absent from the room. The court found the school district liable for unreasonably allowing the machine to be stored in the back of the classroom; and found the teacher negligent for not properly supervising the classroom. In *Farcisse v. Continental Ins.*[21] a heavy metal door was shut on an elementary child's thumb. There the court found no liability on the part of the teacher or school district. It found no evidence that even though the supervision afforded the child was not constant, it was reasonable.

Causation. Next, one must determine that the negligent act actually caused the injury. Thus, if the injury came about for reasons other than the defendant's actions there is no liability. Courts require that the negligence of the defendant be the substantial cause of the harm to the plaintiff, substantial enough to conclude that act was indeed a cause of the injury. There must be an unbroken chain of events between the act and the resulting injury. If the negligence is not a substantial factor in producing the harm there is no liability.

A defendant can sometimes be held liable for injuries even if the most immediate cause was not his or her action. Acts which occur between the negligence and the injury are called intervening acts. If the intervening act or acts were forseeable, or the resultant injury was forseeable, the defendent's negligence will be held to be the legal cause of the injury.

In some situations teachers have been able to refute negligence charges by establishing that other students' intervening acts were the real cause of the incident. In *Hammond v. Scott*[22] a student was injured by another student who threw a nail during a woodshop class. The court found that the teacher had provided adequate supervision and instruction and emphasized that the teacher should not be held responsible for the injuries resulting from a student disobeying the rules. In another case, a high school student was injured in class when she fell after another student had knocked the stool out from underneath her. The court found neither the teacher nor the school liable, primarily because the teacher could not have foreseen that one student would do this to another.[23]

Injury. The defendant in a negligence action is liable only if his or her negligence has caused some actual injury. Even nominal damages cannot be obtained where no actual loss can be shown. Usually a physical injury to the plaintiff is required before damages can be awarded. In addition to awards for physical damages—medical bills, loss of prospective earnings—courts can also make award for accompanying non-physical injuries, e.g., emotional distress, pain and suffering. In *Smith v. Archbishop of St. Louis*[24] an award of $1,250,000 was upheld which included damages for the child's physical pain and emotional trauma after being severely burned.

Defenses to negligence actions. There are several defenses which school districts and school administrators may use in rebutting negligence charges. In any negligence action a common line of defense is contributory or comparative negligence. Historically, the most often used defense for governmental bodies is immunity. More recently school personnel have been able to take advantage of provisions enacted by some state legislatures. A brief description of these common defenses follow.

Both comparative and contributory negligence involve some fault or negligence on the part of the injured person. To successfully use this defense the defendant must show that the plaintiff, the injured party, in some way through his or her own negligent, actions contributed to his or her own injuries. In determining whether the plaintiff is negligent the same rules of reasonable care and causation, as discussed previously, apply.

Under the doctrine of contributory negligence, negligence on the part of the plaintiff operates as a total bar to recovery. That is, once negligence on the part of the plaintiff is shown, the plaintiff cannot recover for any part of the injuries. In older cases, courts prevented a plaintiff's recovery if any amount of negligence was shown to have caused the injuries, no matter how slight. This doctrine has drastic results when a plaintiff's injuries are great and his or her own negligence is slight. Recognizing this in more modern cases, courts have denied plaintiffs' recovery if their negligence has been a substantial factor in their own injuries.

In response to the drastic results sometimes caused by the doctrine of contributory negligence most states have converted to the doctrine of comparative negligence. Most states have some form of comparative negligence. In comparative negligence the amount of negligence and causation of each party is compared to determine a degree of fault; recovery is based on the relative degree of fault. If the plaintiff's negligence has caused only ten percent of the injuries suffered, under comparative negligence the plaintiff is allowed to recover ninety percent of the damages; under contributory negligence no damages would be allowed. The specific provisions of comparative negligence vary from state to state but the concept of comparative negligence is generally the same.[25]

Sovereign immunity is a common law precedent which protects a state from liability. It originates from the sixteenth-century concept that "the King can do no wrong."[26] This concept was transported across the Atlantic in the early 1800s and became American precedent.[27] Less than thirty years ago negligence actions against governmental entities were virtually nonexistent because most states enjoyed the benefits of sovereign immunity. The doctrine is generally justified because it limits the flow of public money to private citizens in damage awards; liability payments deplete governmental treasuries and thus detract from other functions of the governmental body. This concept is applicable to schools since they are arms of the state and governmental entities in their own right.

Many states, recognizing the widespread availability of insurance and the injustices which can sometimes accompany a finding of sovereign immunity have done away with this defense to liability either judicially or by legislation. The trend is to limit sovereign immunity. Only Maryland and Mississippi have retained total sovereign immunity. Eight states[28] have set up administrative agencies to hear claims; usually, these schemes have a short statute of limitations and a maximum level of possible damages. Nine states[29] have abrogated sovereign immunity in certain classes of cases. Typically this abrogation involves motor vehicle suits and actions in which insurance has been obtained.

The remaining thirty-one states and the District of Columbia have abrogated sovereign immunity, leaving only governmental immunity. Governmental immunity offers protection for governmental conduct which involves discretionary functions or duties; it does not protect against proprietary actions.[30] Traditionally, state subdivisions, municipalities and school districts have generally only enjoyed governmental immunity.[31] The reform in sovereign immunity has had little impact on governmental immunity. In all of the states governmental immunity still exists. "In both the states that have generally abolished immunity and the states that generally retain it subject to exceptions, it is agreed that the discretionary functions or basic policy immunity remains as a shield against governmental liability."[32]

Thus, school districts both in states which have abrogated immunity and those which have not are not liable for actions made in their governmental functions. Therefore, a finding that the activity out of which the claim arose was a governmental function will result in a finding of no liability for the schools. For example: a student was struck and killed by a car while enroute to catch a school bus at the bus stop. The school district was sued for negligence in locating the stop and failing to post signs warning the passing motorists of the bus stop. The court found the district immune since the decision to place the bus stop and warning signs involved policy making, planning and/or governmental judgment.[33]

This distinction between governmental and proprietary actions is often difficult to apply and frequently is the cause of conflicting outcomes on similar facts. One of the most profound illustrations of this is shown by *Sawaya v. Tuscon High School District No. 1*[34] and *Kellam v. School Bd. of Norfolk.*[35] In both cases the schools had leased a football stadium to a third party. In both a spectator was injured and sued each district for negligence in maintaining unsafe conditions. The courts reached opposite decisions on whether the districts should be given immunity, differing on whether the leasing was a governmental function.

In some states, the legislatures have abolished immunity and enacted "save harmless" statutes. Currently these states include Florida, Connecticut, Iowa, Massachusetts, New Jersey, Oregon, New York and Wyoming.[36] These statutes are tantamount to liability insurance policies against personal liability of teachers, administrators and other school officials when they are acting within the scope of their employment. Most of these statutes require the school district generally to be the insurer for these employees up to a specified dollar amount for liability. Typical wording can be found in the New York statute:

> [I]t should be the duty of each board of education, trustee or trustees . . . to save harmless and protect all teachers, practice or cadet teachers, and members of supervisory and administrative staff or employees from financial loss arising out of any claim, demand, suit, or judgment by reason of alleged negligence or other act resulting in accidental bodily injury to any person within or without the school building, provided such teacher, practice or cadet teacher, or member of the supervisory or administrative staff or employee, at the time of the accident or injury was acting in the discharge of his duties within the scope of his employment."[37]

Malpractice. In the 1970s, it was feared that educational malpractice claims would become quite common. Educators have been carefully avoiding any situation which might result in an action for educational malpractice brought against them. In spite of these concerns there has not yet been an award of damages for educational malpractice or failure to provide an education upheld by an appellate court.

The seminal case in educational malpractice is *Peter W. v. San Francisco Unified School District.*[38] Peter W. received a high school diploma from the San Francisco schools. Contrary to the California statute requiring graduates to be able to read over the eighth-grade level,[39] Peter W. was illiterate. Peter W. sued the district for negligence in not teaching him these skills and allowing him to graduate without them. The lower court's dismissal of the action was upheld by the California Court of Appeals. The court discussed at length the "duty" requirement as it exists in negligence law and found no legal duty on which to base an action. Second, the court concluded there was no workable standard of care for teaching against which the defendants' actions could be judged.

> Unlike the activity of the highway or the marketplace, classroom methodology affords no readily acceptable standards of care, cause, or injury. The science of pedagogy itself is fraught with different and conflicting theories of how or what a child should be taught, and any layman might—and commonly does—have his own emphatic view on the subject.[40]

In addition, the court noted that the degree of certainty that the plaintiff had suffered an injury, the extent of the injury and the establishment of a causal link between defendants' conduct and plaintiffs' injuries were all highly problematic. The primary motive, apparently, for the court's reluctance in examining these problems was the public policy involved. The court found a public policy against allowing such suits because of the burdensome litigation which would be generated.

> Few of our institutions, if any, have aroused the controversies, or incurred the public dissatisfaction, which have attended the operation of the public schools during the last few decades. Rightly or wrongly, but widely, they are charged with outright failure in the achievement of their educational objectives; according to some critics, they bear responsibility for many of the social and moral problems of our society at large. Their public plight in these respects is attested in the daily media, in bitter governing board elections, in wholesale rejections of school bond proposals, and in survey upon survey. To hold them to an actionable "duty of care," in the discharge of their academic functions, would expose them to the tort claims—real or imagined—of disaffected students and parents in countless numbers. They are already beset by social and financial problems which have gone to major litigation, but for which no permanent solution has yet appeared. The ultimate consequences, in terms of public time and money, would burden them—and society—beyond calculation.[41]

The New York court of Appeals struck a similar action in *Donohue v. Copiague Union Free School District.*[42]

This decision was based equally on public policy concerns. The court expressed concern that recognition of this cause of action would require the courts to make judgments on the validity of broad educational policies and might eventually require their hand in review of day-to-day implementation of these policies. This would contravene the judicial policy of not becoming involved in educational questions.[43] Additionally, the court noted that the public has available administrative avenues for review through the Commissioner of Education. The court concluded: "Recognition in the courts of this cause of action would constitute blatant interference with the responsibility for the administration of the public school system lodged by Constitution and statute in school administrative agencies."[44]

In sum, the courts' denials of educational malpractice claims have primarily been based on the following arguments.

- The lack of an appropriate standard of care against which to measure conduct,
- The fear that recognition of the cause of action will cause a flood of litigation which would over-burden the courts,
- The award of monetary damages would be uncertain and inappropriate, and
- Litigation of such claim would lead to judicial interference in educational policy making.

Contracts

The general principles of contract law apply to contracts entered into by a school district. The necessary elements for a valid contract are: 1) offer and acceptance, 2) competent parties, 3) legal consideration, 4) legal subject matter and 5) proper form.

Both parties must have the legal capacity to enter into a contract before it can be valid. The school board is recognized as a legally competent entity to enter into a contract.[45] Most state statutes give the power to make contracts to the board, not to administrators. However, this does not always prevent "that authority from being exercised by and through the superintendent."[46] In *Smith v. Fort Madison Community School District* the court found that the superintendent had the authority to modify a board contract. Nonetheless, the board generally must extend the original offer or ratify an original contract.

In *Community Projects v. Wilder*[47] the court found that under the statute empowering the board to enter into contracts the board had exclusive authority to enter into contracts. The court therefore invalidated an agreement to purchase goods to be used in a fund-raising activity purchased by a principal. However, in *Hebert v. Livingston Parish School Board,*[48] the opposite result was reached. The court found that since the board assigned the responsibility to principals to supervise extracurricular activities that lead to contracts, the board assumed the ultimate financial responsibility for those contracts. Thus, the principal had implied authority to enter into a contract on behalf of the board for the expenses of a school prom. The difference in results in these cases can be justified by differences in the state statutes empowering the school board. To be certain of the extent of authority of administrators one should consult controlling state statutes and interpretations.

When an unauthorized employee enters into an agreement in the name of the school district the district is not bound. The contract can be voided by the court.[49] In such situations the person who is dealing with the employee has the burden of determining the extent of his or her authority.[50]

Contracts made by school districts must be for legal subject matter; they cannot be beyond the scope of the school districts' legal authority. As a legislatively created entity a school district only has the powers conferred on it expressly or by necessary implication by the legislature.[51] Thus, the school district cannot contract for goods or services outside of the scope of its authority. In addition, a board cannot contract away its governmental functions. In *Coalition v. School District Kansas City*,[52] the board had entered into a contract with a neighborhood association agreeing to open an experimental school for three years. The court found this contract invalid because it removed the board's discretion to close the school, thus depriving them of a governmental function.

Finally, contracts must be made in the proper form to be valid. The required form is dependent on state statutes. The requirements for school districts may be more specific or extensive than for other contracting parties in the state. When these requirements are not met the contract is invalid.[53] Generally, state provisions for a Statute of Frauds requires a written form when the subject matter is real property, when the subject matter exceeds the sum of $500, or when the contract possibly spans more than one year.[54] In addition to these requirements statutes often require a school district to undertake a bidding procedure which must also be followed before there is valid contract.[55] Once again, the requirements will vary from state to state. Thus the statutes should be consulted before action is taken.

Criminal Liability

School business administrators may be subject to criminal liability within the scope of their position. Although criminal statutes differ from state to state, the most common crimes would involve misuse of school funds: larceny, theft and embezzlement. It is possible to be subject to criminal sanctions as well as disciplinary actions for this type of activity.

This activity occurs but there is very little written in the literature or reported in decisions. However, there is a reported case in New York,[56] in which the defendant was the school business administrator and purchasing agent for the City School District of Oswego. He was arrested and convicted on a charge of grand larceny arising from the theft of property from the school district. The defendant was incarcerated on the criminal charges and suspended from his position without pay for six months on disciplinary charges.

Handling Public Funds

Fees

In light of current economic conditions in the United States the practice of charging fees for various school services is increasing. The cases on this subject vary, since the challenges are based on state constitutional provisions for "free," "thorough" or "uniform" schools, and each provision is subject to its own state court interpretations. There are twenty-nine states[57] which have "free" in their constitutional provisions establishing schools, and of these, sixteen have had some legal ruling on the constitutionality of fee assessments in public schools.[58] Nine of these sixteen have basically the same wording, "free public system," in their provisions but have had different conclusions reached as to what that wording means. Following is a description of two typical cases dealing with the subject. Many other cases exist involving other school services, e.g., fees for transcripts,[59] textbook fees[60] and lunchroom supervisory fees.[61]

A recent case comes from California: *Hartzell v. Connell*[62] involved the propriety of charging a fee for extracurricular activities. This policy was undertaken after a $1.1 million budget cut as an alternative to drastically cutting extracurricular activities. All of the programs for which a fee was required were non-credit; but most were connected to a credit course: varsity football players play in noncredit, fee-generating interscholastic competition and practice in a credited, non-fee-generating varsity football course. The district provided fee waivers for students who could not financially afford the fees; a total of seventy-three waivers were granted. The California Constitution requires the legislature to "provide for a system of common schools by which a free school shall be kept up and supported in each district."[63] The California Supreme Court recognized that extracurricular activities today are "an integral component of public education."[64] Accordingly, the court found that "all educational activities—curricular or 'extracurricular'—offered to students by school districts fall within the free school guarantee of Article IX, Section 5."[65]

The Montana Supreme Court reached a different conclusion. The Montana Constitution requires the Legislature "to establish and maintain a general, uniform and thorough system of public, free, common schools."[66] In *Granger v. Cascade Co. School Dist., 159,*[67] the court found that provision prohibited schools from charging tuition for courses and activities which are "reasonably related to a recognized academic and educational goal of the particular school system."[68] As interpreted, the courses and activities which must remain free are those assigned credit for graduation. Thus, the school districts are able to charge fees for many extracurricular activities and "frills" courses.

Two approaches to determine if a fee can constitutionally be levied have emerged in the courts. The first approach was adopted by the Michigan Supreme Court.[69] Here the court examines the plain, ordinary meaning of the constitutional language without resorting to extrinsic evidence. The second approach was adopted by the Illinois Supreme Court[70] and analyses the educational practices at the time the constitutional provision was adopted. This historical approach defines the education provision by ascertaining the intent of those who framed and adopted the state constitution.

The first approach uses a two-step process. The first step is interpreting the constitution to determine if the language allows any fees. If the court interprets "free" to mean without cost, then it usually holds that the state constitution prohibits fees for any activities or items considered educational. However, because some items and activities in schools may not be educational, the court takes a second step and determines whether the item or activity for which a fee is charged constitutes education. It is in this step that courts have developed such tests as: whether the activity is a necessary element of the school program;[71] whether the activity is an integral part of elementary and secondary education;[72] or whether the activity is reasonably related to a recognized academic or educational goal of the school system.[73]

Under the second historical approach the courts assume the framers meant "free" to include only those educational items and activities offered without charge by schools at the time of the provision's adoption.[74] If the item was not provided free of charge the courts hold that a fee assessment for the activity is constitutional.

Since the legal authority among the states which have fee questions varies so widely in the interpretation of the meaning of constitutional provisions on education, it is impossible to make projections for states that have not yet encountered this question. It is best to check a state's constitution, cases and attorney general's opinions on the subject before embarking on any fee program.

Expenditures

School districts are generally given wide latitude in determining how educational funds can be spent. The attitude of the courts has been that a school district, being charged with the responsibility of operating the schools, should have as much freedom as possible to determine how and when the funds will be spent. The primary restraint is that the courts require educational funds be spent only on educational purposes.

A North Carolina case involved the authority of a public school to support a program for latch-key children.[75] The program operated after the close of school and provided a supervised program in which children could do homework, study or participate in athletic or artistic activities. Tuition was charged to the parents to defray the cost of the program. The North Carolina Court of Appeals held that the board was free to permit the expenditures of tax money for the purposes since the purpose of the program was to further the educational achievement of the students.

Courts have also restricted the use of school funds. The Louisiana Court of Appeals held that school personnel are prohibited from using tax money for advertising, polling and other promotional activities in support of a political cause. Clearly the activities in question were not educational.[76]

In addition, schools cannot spend funds in contradiction of court orders, or for purposes other than for which they were specifically allocated. A school district must spend funds for the purpose for which they were collected. If a statute requires fund accounting for special tax money, the school board must establish and deposit the money in such a fund. Funds which were raised by bonds or levy for a particular purpose cannot be delivered to an account with another purpose. There are many examples of these basic rules; two follow.

In *Hoots v. Commonwealth of Pennsylvania*[77] two school districts were prohibted by the court from issuing a rebate to the taxpayers. The court found that the school districts were attempting the rebate to prevent surplus funds from going to a newly consolidated school district formed by the two defendant districts under a desegregation order. The court found this to be in violation of the consolidation order.

From 1966 to 1973, the annual meeting of the Monrow School District voted to levy a tax to construct a swimming pool. In 1974, the meeting appropriated the accumulated sum to a sinking fund dedicated to the construction of the pool. From 1974 to 1979, taxes were continued to be levied and appropriated to the sinking fund. In 1979 and 1980, the proposal for issuing bonds to raise the additional funds necessary to construct the pool was defeated. In 1980 the voters also defeated a referendum allowing the board to use the funds accumulated in the sinking fund for other purposes. The board next sought to have the sum declared part of "funds on hand" so it could be used for other educational purposes. The Wisconsin Court of Appeals determined that since the funds were specifically dedicated they could not be diverted into general funds, nor could they be used for other purposes without voter approval.[78]

Handling Student Records

Because of widespread dissatisfaction with educators' handling of students' records, the U.S. Congress passed the Family Educational Rights and Privacy Act in 1974, better known as the Buckley Amendment.[79] Final regulations, which contain the essence of the procedures were passed in 1976. The Buckley Amendment stipulates that federal funds may be withdrawn from any educational agency or institution which has a practice of failing to provide parents and eligible students access to their educational records, or which disseminates information to unauthorized third parties. In addition, parents and eligible students must be given a hearing to challenge the contents of records which they believe to be inaccurate. The Education for All Handicapped Children Acr, P.L. 94-142, also dictates the confidentiality of records.

Those Eligible for Access

A student acquires rights to access his or her records under the Buckley Amendment when he or she becomes eighteen years old and when enrolled in a postsecondary educational institution.[80] A student under the age of eighteen may gain access to his or her records if the school chooses to permit it,[81] or if the parents grant access as an authorized third party.

Until students have acquired rights under the Buckley Amendment, parents and guardians of the student have all rights guaranteed by the Buckley Amendment. A district may assume that both parents have the right to access unless a court ruling, state law or other legal authority provides to the contrary.[82] Under this provision the school must receive notice that the parent is not to be allowed access, not just that the parent does not have custodial rights. As stated by one court: "the regulations implementing the Act allow inspection by either parent, without regard to custody, unless such access is barred by state law, court order or legally binding instrument."[83]

A parent or an eligible student may consent to third-party access to the student's educational records. The consent must be in writing, signed and dated and must specify which records are to be disclosed, the purpose of the disclosure and the person(s) to whom disclosure is to be made.[84] The following situations do not require parental consent before disclosing records.

Records may be released to school officials in a district to which the student intends to transfer after the parent has had a chance to inspect the records.[85] In *Klipa v. Bd. of Education*,[86] the school administrators were found not liable for invasion of privacy where they had inadvertently caused a student's psychological and medical records to be transferred to her new school after the parents had requested only her academic records be sent. The court held that there was no liability because "the consent of the parents was not necessary in order to permit the transfer of all the child's records to the new school."[87] In addition, records may be released to school officials in the same district who have been determined to have a legitimate educational interest in the records.[88]

Records may be released to various state and national educational agencies when enforcing federal laws.[89] Records may be released to student financial aid officials, but only to the extent necessary to determine eligibility.[90] Records may be released to accrediting agencies for the purposes of accreditation.[91]

Records may be released in compliance with a court order after the school has made a reasonable effort to notify the parent or eligible student of the order prior to compliance.[92] In *Rios v. Read*,[93] a class action suit, several hundred files were subpoenaed. The court found that even when a number of records are subpoenaed the school still had the duty to make reasonable efforts to contact the parents and eligible students involved, although notice by publication or mail would be sufficient. The court gave additional guidance in this area:

> (I)t would seem sensible to require in the disclosure order that the recipients of the student records avoid revealing the litigation and destroy the data when it is no longer needed. But it is neither required or necessary that the defendants redact the names of the students from the records and substitute neutral identifying information.[94]

Public directory information may be released to the general public. A list of names and addresses of parents of students falls within the definition of directory information, and thus can be released without prior consent.[95] The school, however, must notify parents and eligible students each year concerning what information will be made available as directory information. Parents or eligible students may request that the school not include their names on the list.[96]

Information which is not personally identifiable may be released. In *Dryston v. Bd. of Education*,[97] the Court required access to standardized test scores after they were placed in a random order and the name of individual students had been removed.

Finally, records may be released to appropriate persons in an emergency where such information is necessary to protect the health or safety of the student or other individuals.[98]

Educational Records

The provisions of the Buckley Amendment extend to all information directly related to the student, recorded in any form and maintained by the school with the primary exceptions of:

1. notes made by a teacher in a teacher's log which are not disclosed to others,[99] and
2. physician's or psychologist's notes which are used for treatment and are not disclosed to others.[100]

Information concerning a student received from other sources is not the responsibility of the school district. Thus, where it appeared in a student newspaper that a student had been suspended and the information was received from sources independent of school officials, there was no violation of the Buckley Amendment.[101] In addition, the school is not responsible for the release of information concerning students and student activities which are not maintained by the school, such as information kept by independent athletic associations.[102]

Access Procedures. The provisions of the Buckley Amendment require a school to prepare annually a list of procedures and policies governing access to student records. This policy must also include notification to parents and eligible students of their rights under the Act.[103] The general rules on inspection of records are:

1. A school must respond to a written or oral request to inspect within a reasonable time, not to exceed 45 days.[104]
2. Authorized persons are entitled to physically inspect all records regardless of their location. They may request access to all their records without having to specify particular records in which they are interested. A parent or eligible student may bring another person with him although a written consent form for the person may be required by the school.[105]
3. A school must provide copies of the records on a parent's or student's request whenever records are transferred to another school,[106] whenever information is released to a third party,[107] or whenever denial of copies would effectively deny the right of access.[108] A school may charge a reasonable fee for copying but may not charge for the labor expended in searching for or retrieving records.[109]
4. A school may condition receipt of transcripts on payment of all fees[110] and loans.[111]

Challenging Contents. A parent or eligible student may request that the school amend or delete information they believe to be inaccurate or misleading or which violates privacy rights.[112]

If the school refuses, the parent or eligible student may request a hearing on the issue.[113] The hearing must be scheduled within a reasonable time. Notice must be given to the participants before the hearing with sufficient time to afford them an opportunity to prepare, and the hearing must be conducted before an unbiased hearing officer. The parent or eligible student has the right to be represented, present evidence and receive a reasonably prompt decision.[114] If the hearing officer denies the request, the parent or eligible student may place a statement of explanation in the record.

Enforcement. The remedy for a violation of the Buckley Amendment is the withdrawal of federal funds.[115] The courts have determined that no alternate private remedy exists under the statute.

Summary

In the early years after the Buckley Amendment was passed many schools reacted by purging all student files and not allowing any negative comments to be placed in those files. The Buckley Amendment does not mean that negative notations should be taken out of a student's educational record; if they are factual and related to the student's education they are legitimate. The Buckley Amendment was written in response to the concern of many parents that they were not allowed access to their children's record when many other people were allowed access to the same record. It was intended only to protect the privacy rights students and parents have in students' educational records.

Conclusion

In the 1980s, it seems the major substance of education law will be internal issues involving policies and the educational process: personnel management, negligence, civil rights actions, handicapped students and interpretation/application of school rules. The cases of this era thus far indicate an increased willingness to allow school districts automomy on these issues unless there is a constitutional or statutory violation. The ramification for local school administrators is that they will have more discretion; however, they should exercise this discretion wisely. The following cautions can be gleaned from current court opinions:

1. Be aware of individuals' rights and consider them before acting.
2. Review policies with current constitutional and statutory standards in mind.
3. If policies apply, follow them.
4. Anticipate problems or questions as much as possible and work through them before they occur.
5. Be aware of rights and laws, but don't let fear of a lawsuit dictate educational policy.

NOTES

1. 42 U.S.C.A. 1983, see also, R. Craig Wood, "Liability of School Business Administrators," *Planning and Changing*, V. 14, No. 4, 245-256 for a discussion of various positions of this chapter.

2. Ibid.

3. *Monell v. New York City Dept. of Social Services*, 436 U.S. 658, 98 S.Ct. 2018 (1978).

4. *Wood v. Strickland*, 420 U.S. 308 (1975).

5. *Mt. Healthy City Sch. Dist. Bd. of Educ. v. Doyle*, 429 U.S. 274 (1977).

6. 420 U.S. 308 (1975).

7. Vacca and Hudgins, *Liability of School Officials and Administrators for Civil Rights Torts*, Charlottesville, Va.: Michie Co., 1982, pp. 47-48.

8. *Pence v. Rosenquist*, 573 F.2d 395, 398 (7th Cir. 1978).

9. 435 U.S. 247 (1978).

10. 42 U.S.C.A. (1985).

11. Vacca and Hudgins at 21.

12. 461 U.S. 424 (1983).

13. 53 U.S.L.W. 4473 (1985).

14. 447 U.S. 54 (1980).

15. Topeka, Kansas: National Organization On Legal Problems of Education, 1979.

16. W. Prosser, *Handbook on the Law of Torts*, 4th Ed., at 143.

17. 407 So. 2d 759 (La. Ct. App. 1982).

18. 430 N.E.2d 648 (Ill. App. Ct. 1981).

19. Prosser at 124.

20. 409 So. 2d 1316 (La. Ct. App. 1982).

21. 419 So. 2d 436 (La. Ct. App. 1982).

22. 232 S.E.2d 336 (S.C. 1977).

23. *Boyer v. Jablonski, 435 N.E.2d 436 (Ohio Ct. App. 1980).*

24. *632 S.E.2d 516 (Mo. Ct. App. 1982).*

25. *See Prosser at p. 274.*

26. *Russell v. The Men Dwelling in the County of Devon,* 100 Eng. Rep. 359 (1788).

27. *Mower v. The Inhabitants of Leicester*, 9 Mass. 237 (1812).

28. Alabama, Arkansas, Georgia, Kentucky, North Carolina, Tennessee, West Virginia and Wisconsin.

29. Connecticut, Delaware, Kansas, New Hampshire, North Dakota, Oklahoma, South Carolina, South Dakota and Texas.

30. Prosser and Keaton, *Handbook on the Law of Torts*, 5th ed., 1043-46.

31. *Russell v. Men of Devon*, 2 Term Rep. 667, 100 Eng. Rep. 359 (1798).

32. Prosser and Keaton at 1052.

33. *Harrison v. Escambia City Sch. Bd.*, 419 So. 2d 640 (Fla. Dist. Ct. 1982).

34. 78 Ariz. 389, 281 P.2d 105 (1955).

35. 202 Va. 252, 117 S.E.2d 96 (1960).

36. Kern Alexander and M. David Alexander, *The Law of Schools, Students and Teachers in a Nutshell*, (St. Paul 1: West Pub. Co.), 230.

37. Ibid.

38. 60 C.A.3d 814, 131 Cal. Rptr. 854, (1976).

39. Cal. Educ. Code 8573.

40. Peter W:, 131 Cal. Rptr. at 860.

41. Ibid. at 861.

42. 47 N.Y.2d 440, 418 N.Y.W.2d 375, 391 N.E.2d 1352 (1979).

43. See *Bd. of Curators of Univ. of Missouri v. Horowitz*, 435 U.S. 78, 98 S.Ct. 948 (1978).

44. Ibid. at 1354.

45. See, *NEA - Wichita v. Unified Sch. Dist. No. 259*, Sedgwick County, 234 Kan. 512, 674 P.2d 478 (1983); *Allen v. Town of Sterling*, 329 N.E. 2d 756 (Mass. 1975).

46. Smith v. Fort Madison Comm. Sch. Dist. 3334 N.W.2d 701, 703 (Iowa 1983).

47. 298 S.E.2d 434 (N.C. App. 1982).

48. 438 So. 2d 1141.

49. *Cado Business Systems of Ohio, Inc. v. Bd. of Educ. of Cleveland City Sch. Dist.*, 8 Ohio App.3d 385, 457 N.E.2d 939 (1983).

50. *Robert W. Anderson Housewrecking and Excavating, Inc. v. Bd. of Trustee, Sch. Dist., No. 25*, Fremont County, 681 P.2d 1326 (Wyo. 1984).

51. *NEA - Wichita*, 234 Kan. 512, 674 P.2d 478 (1983).

52. 649 S.W.2d 533.

53. *Minor v. Sully Buttes Sch. Dist. No. 58-2*, 345 N.W. 2d 48 (S.D. 1984).

54. See *School Bd. of Amherst County v. Burtley*, 302 S.E.2d 53.

55. *E.G. Willett Motor Coach Co. v. Bd. of Educ. of Chicago*, 59 Ill. Dec. 433, 431 N.E.2d 1190, cert. den'd. sub. nom. 103 S.Ct. 258 (1981).

56. *Kelly v. Allen*, 440 N.Y.S.2d 424, 443 N.Y.S.2d 183 (1981).

57. Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Maryland, Michigan, Mississippi, Montana, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, South Carolina, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

58. Arizona, *Carpio*, 111 Ariz. 127, 524 P.2d 948 (1974); Arkansas, *Dowell v. School Dist. No. 1*, 220 Ark. 828, 250 S.W.2d 127 (1952); California, *Hartzell v. Connell*, 201 Cal. Rptr. 601 (1984); Colorado, *Marshall v. School Dist. No. 3*, 553 P.2d 784 (Colo. 1976); Georgia, *Smith v. Crim*, 240 Ga. 390, 240 S.E.2d 884 (1977), Idaho, *Paulson v. Minidoka Cty Sch. Dist. No. 331*, 93 Idaho 469, 463 P.2d 935 (1970); Illinios, *Hamer v. Bd. of Educ. of Sch. Dist. No. 109*, 9 Ill. App.3d 663, 292 N.E.2d 569 (1973); Michigan, *Bond v. Pub. Sch. of Ann Arbor*, 33 Mich. 693, 178 N.W.2d 484 (1970); Montana, *Granger v. Cascade County Sch. Dist. No. 1*, 159 Mont. 516, 499, P.2d 790 (172); New Mexico, *Norton v. Bd. of Educ. of Sch. Dist. No. 16*, 89 N.M. 470, 553 P.2d 1277 (1976); North Carolina, *Sneed v. Greensboro City Bd. of Educ.*, 299 N.C. 609, 264 S.E.2d 106 (1980); NOrth Dakota, *Cardiff v. Bismarck Pub. Sch. Dist.*, 263 N.W.2d. 105 (N.D. 1978); Oklahoma, 76 Op. Atty. Gen. 322 (1977); South Carolina, 4082 Op Atty. Gen. 156 (1975); West Virginia, *Vandevender v. Cassell*, 208 S.E.2d 436 (W.Va. 1974); *Wisconsin, Bd. of Educ. v. Sinclair*, 65 Wisc. 2d 179, 222 N.W.2d 143 (1974).

59. *Paulson*, 93 Idaho 469, 463 P.2d 935 (1970).

60. *Bd. of Educ. v. Sinclair*, 65 Wis.2d 179, 222 N.W.2d 143 (1974).

61. 427 N.E.2d 1027 (Ill. App. 1982).

62. 201 Cal.Rptr.601, 679 P.2d 35 (1984).

63. Cal. Const., Art. IX, Sec. 5.

64. 679 P.2d at 42.

65. Ibid. at 43.

66. Art. X. Sec. I (3).

67. 499 P.2d 780 (1972).

68. Ibid. at 780.

69. *Bond v. Pub. Sch. of Ann Arbor*, 383 Mich. 693, 178 N.W.2d 484 (1970).

70. *Hamer*, 9 Ill. App. 3d 663, 265 N.E.2d 569 (1973).

71. *Paulson*, 93 Idaho 469, 463 P.2d 935 (1970).

72. *Bond*, 178 N.W.2d 484.

73. *Granger*, 159 Mont. 516, 499 P.2d 780 (1972).

74. J. Kendall, "Public School Fees in Illinois: a Re-examination of Constitutional and Policy Question" *U. of Ill. L. Rev.* (1984) at 104.

75. *Kiddie Korner Day Schools, Inc. v. Charlotte-Mecklenburg Bd. of Educ.*, 285 S.E.2d 110 (N.C. Ct. App. 1981).

76. 372 So. 2d 1060.

77. 535 F.Supp. 1194 (W.D. Pa.1982).

78. *Barth v. Bd. of Educ., Sch. Dist. of Monroe*, 108 Wis.2d 511 322 N.W.2d 694 (1982).

79. 20 U.S.C.A. 1232g.

80. 34 C.F.R. 99.3.

81. 34 C.F.R. 99.4 (c).

82. 34 C.F.R. 99.3, 99.11(c).

83. *Page v. Rotterdam*, 441 N.Y.S. 2d 323, 325 (1981).

84. 34 C.F.R. 99.30.

85. 34 C.F.R. 99.31 (a) (2).

86. 460 A.2d 601 (Md. App. 1983).

87. Ibid. at 608.

88. 34 C.F.R. 99.31 (a) (1).

89. 34 C.F.R. 99.31 (a) (3).

90. 34 C.F.R. 99.31 (a) (4).

91. 34 C.F.R. 99.31 (a) (7).

92. 34 C.F.R. 99.31 (a) (9); Mattie T. v. Johnston, 74 F.R.D. 498 (D.C. Miss. 1977).

93. 73 F.R.D. 589 (D.C. N.Y. 1977).

94. Ibid. at 602.

95. *Hathaway v. Joint Sch. Dist. No. 1*, 110 Wis. 2d 254, 329 N.W. 2d 217 (1982); *Kestenbaum v. Michigan State Univ.*, 294 N.W. 2d 228 (Mich. App. 1980).

96. 34 C.F.R. 99.31 (a) (10).

97. 430 N.Y.S. 2d 688 (1980).

98. 34 C.F.R. 99.3, 99.37.

99. 34 C.F.R. 99.3.

100. Ibid.

101. *Frasca v. Andrews*, 463 F.Supp. 1043 (E.D. N.Y. 1979).

102. *Arkansas Gazette Co. v. Southern State Coll.*, 620 S.W.2d 258 (Ark. 1981).

103. 34 C.F.R. 99.5, 99.6.

104. 34 C.F.R. 99.11 (a).

105. Ibid.

106. 34 C.F.R. 99.34 (a) (2).

107. 34 C.F.R. 99.30 (d).

108. 34 C.F.R. 99.11 (b) (2).

109. 34 C.F.R. 99.8 (a) (b).

110. *Spas v. Wharton*, 106 Misc, 2d 180, 431 N.Y.S.2d 638 (1980).

111. *Girardier v. Webster Coll.*, 563 F.2d 1267 (8th Cir. 1977).

112. 34 C.F.R. 99.20 (a).

113. 34 C.F.R. 99.20 (c).

114. 34 C.F.R. 99.21 (c) (d).

115. 20 U.S.C.A. 1232g (a) (1) (A) (1976).

18

School District Purchasing

Joseph L. Natale

Purchasing is not an exact science. It is a practical science and is one of the most highly specialized activities in school business administration. It is a term used to describe the activities related to obtaining materials, supplies and equipment that are required to operate schools and serve educational programs. The purchasing process is considerably more than "buying." It includes: receiving, storing, maintaining inventories and distributing. It seeks to obtain maximum value from each educational dollar provided for equipment, supplies and contracted services. The procedures used may vary depending on the district's size.

The Procurement Function

There is no "absolute" purchasing system applicable to all school districts. A system that works well in one district may not be effective in another district. Effective management of the purchasing function requires controlling the quantity and quality of educational supplies needed for the various educational programs.

Principles of Purchasing According to the Literature

Purchasing has become a major function in educational resource management. It involves the processes related to providing the materials necessary to operate the educational programs and facilities of the school system. Purchasing involves the expenditure of a great deal of funds and requires adherence to principles and methods of good management.

The procurement function does not operate in isolation but, instead, is "an integral part of the administrative milieu."[1] Management of the purchasing operation requires working closely with other departments and administrative units in developing a positive relationship with other school functions. The progressive view of purchasing may be described as that which "is coordinated with other phases of the school's activities, neither subordinate nor dominant, but working closely with other departments toward an optimal educational program."[2] Supply management, as it is sometimes called, involves ordering, bidding, purchasing, warehousing, distribution and accounting.[3] It may be viewed as a service function which "involves the management of materials in flow, from the establishment of sources and shipping through inventory and warehousing to the ultimate delivery at educational stations."[4]

In general, the objectives of purchasing are to buy materials, supplies and equipment of the right quality in the right quantity from the right source at the right price at the proper time. One must strike a balance between the quality of a product and service with the economics of that product and service. Quality may be defined as

" . . . the sum or composite of the properties inherent in a material or product."[5]

According to Hentschke, "Much of the theory in supply management has stemmed from trying to answer two basic questions: how much to order at one time, and when to order it."[6]

The Bureau of Business Practice discusses the value of purchasing as the "result of the relationship between the price paid for a particular item and its utility in the function it fills."[7]

Once the quality of a product has been determined, it will be necessary to decide on the quantity to be purchased. According to Condoli, "Purchase quantities must maintain a balance between current educational needs and the advantages of volume buying."[8] It is important that the procurement program of a district provide adequate quantities of material of acceptable quality in a timely manner that will provide for the educational needs of the various school programs.

Ethics of Purchasing

School personnel authorized to make purchases for the school district as well as other staff engaged in the purchasing operation must maintain high ethical standards of conduct. The reputation of the district is reflected through the practices of the district's purchasing official. A Code of Ethics should be developed to guide the acts of purchasing and the district's methods of doing business.

Roe emphasizes the importance of reputable business practices in school districts.

> The purchasing function is considered one of the most touchy jobs in public service. When it is performed fairly, judiciously, and with good management techniques, few people outside the purchasing department concern themselves with it. Let any questionable practices come to light, however, and the public spotlight focuses with ruthless intensity upon the total organization. Mismanagement in purchasing can throw an entire organization into turmoil and disrepute.[9]

The importance of a municipality's ethical conduct in managing its purchasing program is emphasized by the development of a "Model Procurement Code for States and Local Governments" by the American Bar Association. A final draft of this code was approved in February 1979. The Jefferson County Board of Education, Louisville, Kentucky, later adopted the use of Model Procurement for its purchasing program. A major achievement resulting from that program, "the creation of vendor and public confidence in a system they can understand."[10]

The Association of School Business Officials International (ASBO) developed a Code of Ethics which provides guidance in carrying out the purchasing function. Briefly, the ASBO Code of Ethics pledges the individual's actions to be:

1. Best for pupil.
2. Fair to all concerned.
3. Designed to build good will and better understanding.
4. Based upon respect for the past, knowledge of the present and concern for the future.
5. Legally and morally right.
6. Loyal to my associates, to my school district, to my state or province and country, and to my conscience.
7. The best that I can perform.[11]

The New York State Association of School Business Officials adopted the following code of ethics for school purchasing officials:

1. To consider first the interests of the school district and the betterment of its educational program.
2. To endeavor to obtain the greatest value for every tax dollar expended.
3. To be receptive to advice and suggestions from colleagues, both in the educational field and in other departments of business administration, insofar as such advice and suggestions are not in conflict with legal or moral restrictions in purchasing procedures.
4. To strive for knowledge of school equipment and supplies in order to recommend items that may either reduce cost or increase the efficiency of the means of education.
5. To insist on and expect honesty in sales representation whether offered verbally or in writing, through the medium of advertising or in the sample of a product submitted.
6. To give all responsible bidders equal consideration and the assurance of unbiased judgment in determining whether their product meets specifications and the educational needs of the district.
7. To discourage the offer of, and to decline, gifts which in any way might influence the purchase of school equipment and supplies.
8. To accord a prompt and courteous reception, insofar as conditions permit, to all who call on legitimate business missions.
9. To counsel and assist fellow school purchasing officials in the performance of their duties whenever occasion permits.
10. To cooperate with educational, governmental and trade associations in the promotion and development of sound business methods in the procurement of school equipment and supplies.

A code of ethics combined with school regulations and adherence to various statutes will provide the groundwork for a respectable and reputable purchasing operation. A high ethical standard of conduct results in a reputation for the district and purchasing official above any suspicion of unfair dealings.

Methods of Purchasing

There are several methods of purchasing available to school districts. Variations will be necessary to accommodate differences in the laws of the state and policies of the district.

Before engaging in the purchasing of various goods and services for the school system, the purchasing official must become familiar with the state laws, rules and regulations of the State Education Department, and local policies and regulations governing purchasing in the public sector, particularly educational institutions. Many states and local districts have rules and regulations requiring competitive bids for purchases beyond a stipulated amount. Also, some states have available state purchase contracts with various vendors and state agencies at given prices for use by local school districts.

The examples below reflect eleven methods of purchasing. For purposes of categorizing various methods, it will be assumed that any purchases over a given amount will require competitive bidding.

Orders Below $5,000. Purchases may be made in the "open market," using price lists or informal quotations from vendors. The purpose of obtaining quotations is to secure the best available value for the tax dollars invested, discover where a given item can be obtained, when delivery will be made and, at the same time, to be fair to vendors. Quotations may take the form of telephone quotes or written quotations. The former is the least desirable and should only be used when an urgent need exists. At least three quotations should be sought and filed with the purchase decision.

The greatest number of individual purchases by the school district is for items costing less than $5,000. The procedure for such purchases may vary in detail depending on the dollar value of the item purchased. To go through the same procedure for a five dollar order as for a $1,000 order may result in a waste of both time and money.

Orders in Excess of $5,000. State law requires that all purchases necessitating the expenditure of more than $5,000 for a stated "item" within a given fiscal year shall be advertised and awarded on the basis of formal bids. This method involves compliance with state law which requires public advertising, competitive bidding and the award of the contract to the lowest responsible bidder.

Courts have held that trade-in allowances must be treated as an expenditure. For example, a district planning to purchase a new piece of equipment at a gross cost of $3,100 and anticipating a trade-in allowance on old equipment at $600, would have to advertise for bids notwithstanding that the net price was less than $3,000. In determining the low bid, the net price is considered.

State laws generally provide for an exception to the bidding requirements in the case of a public emergency arising out of an accident or other unforeseen occurrence or condition whereby circumstances *affecting the life, health or safety of the inhabitants* of a district require immediate action. Situations of this kind must be such that they cannot reasonably be foreseen in time to advertise for bids.

State Contracts/State Agencies. When state contracts or agencies are used, purchase orders are issued directly to the contractors without the necessity of the district securing bids or quotations, since the state has already taken competitive bids or made and/or supplied the items through various agencies such as the state corrections department.

Public Work Contracts. State law requires public works contracts exceeding $7,000 to be awarded to the lowest responsible bidder. This method is applicable to items and projects which require both materials and labor. Included are such projects as construction, paving and printing.

Cooperative Bidding. Two or more school districts may join together in an agreement to make purchases through competitive bidding on a cooperative basis. This has been done in New York State with Boards of Cooperative Educational Services, as well as with other districts on such items as milk, bread, ice cream, general supplies, paper supplies and audio-visual equipment and supplies. Cooperative purchasing agreements generally must have the approval of the board of education of each participating school district.

Government Surplus. State laws permit the purchase of surplus and second-hand supplies, material or equipment without competitive bidding from the federal government, the state government, or from any other political subdivision or district. Such purchases from a private person or corporation are subject to competitive bidding if the cost is over $5,000.

Professional and Personal Services. Some statutes have been judicially construed as having no application to contracts for professional services or for services requiring special skill or training. For example, contracts for legal, medical, dental, nursing or engineering services are not subject to competitive bidding requirements in most states.[12] Some professional or special services which have been held to be excluded from bidding requirements include: purchases of insurance policies, investment management services, laboratory service, ambulance service contracts, public accountant and preparation of a tax map.

Monopolies. Where a subject of a contract is controlled by a monopoly and there is no possibility of competition, the courts will not require the empty formality of inviting proposals. Examples of such monopolies would be telephone and electric service.

Petty Cash Purchases. Such funds shall be used for the payment of properly itemized bills of nominal amounts and under conditions calling for immediate payment to the vendor upon delivery of any such materials or supplies or the rendering of any such services. Purchases through cash exceeding ten dollars should be discouraged. Petty cash accounts should be reconciled on standard forms with the business office prior to reimbursement. Requirements of reconciliation should include: 1) signature of person making expenditure, 2) receipt for amount spent, and 3) approval of the person responsible for the fund. Petty cash funds must be operated in accordance with the regulations established by the statutes and regulations of the state and district.

Confirmation Orders. A verbal order, subject to subsequent confirmation by a written purchase order, may be issued only in cases where a bona fide emergency situation exists which can be handled only by this procedure. Prior approval of the purchasing agent is required. Whenever possible, a purchase order number should be given to the supplier and a confirming purchase order issued immediately thereafter. This should be marked "Confirmation," indicating the purchase order number, if one was given. The individual placing such an order should justify his/her action. Such deviation from normal practice have a very limited use. Lack of proper planning should not be considered a valid reason for this process.

Blanket Orders. Blanket purchase orders or open end accounts may be issued to various vendors for purchase of those items considered to be of an immediate need. Prior approval of the purchasing agent is required for such orders. The purpose of a blanket purchase order is to eliminate the necessity for the issuance of separate orders for groups of items which are purchased frequently from the same vendor. Examples include: food supplies for home economics classes and plumbing supplies for the maintenance department. The period of time covered by a blanket purchase order, as well as the amount and names of authorized individuals, is determined by the purchasing agent. The department must maintain a record of purchases to ensure they do not exceed the amount allowed by the blanket purchase order. In addition, when supplies are delivered or picked up, receipts, delivery slips or other documents must be obtained and the blanket purchase order number should be placed on the documents. These documents will be attached to the receiving copy of the purchase order and forwarded to the purchasing agent at the end of the period for which the blanket purchase order was issued. If, however, the amount allowed is reached prior to this time, the covering documents should be forwarded to The purchasing agent and a new blanket purchase order requested.

Figure 18:1 depicts some of the methods of purchasing utilized in a school district and those positions having responsibility for various tasks.

Standardized Lists

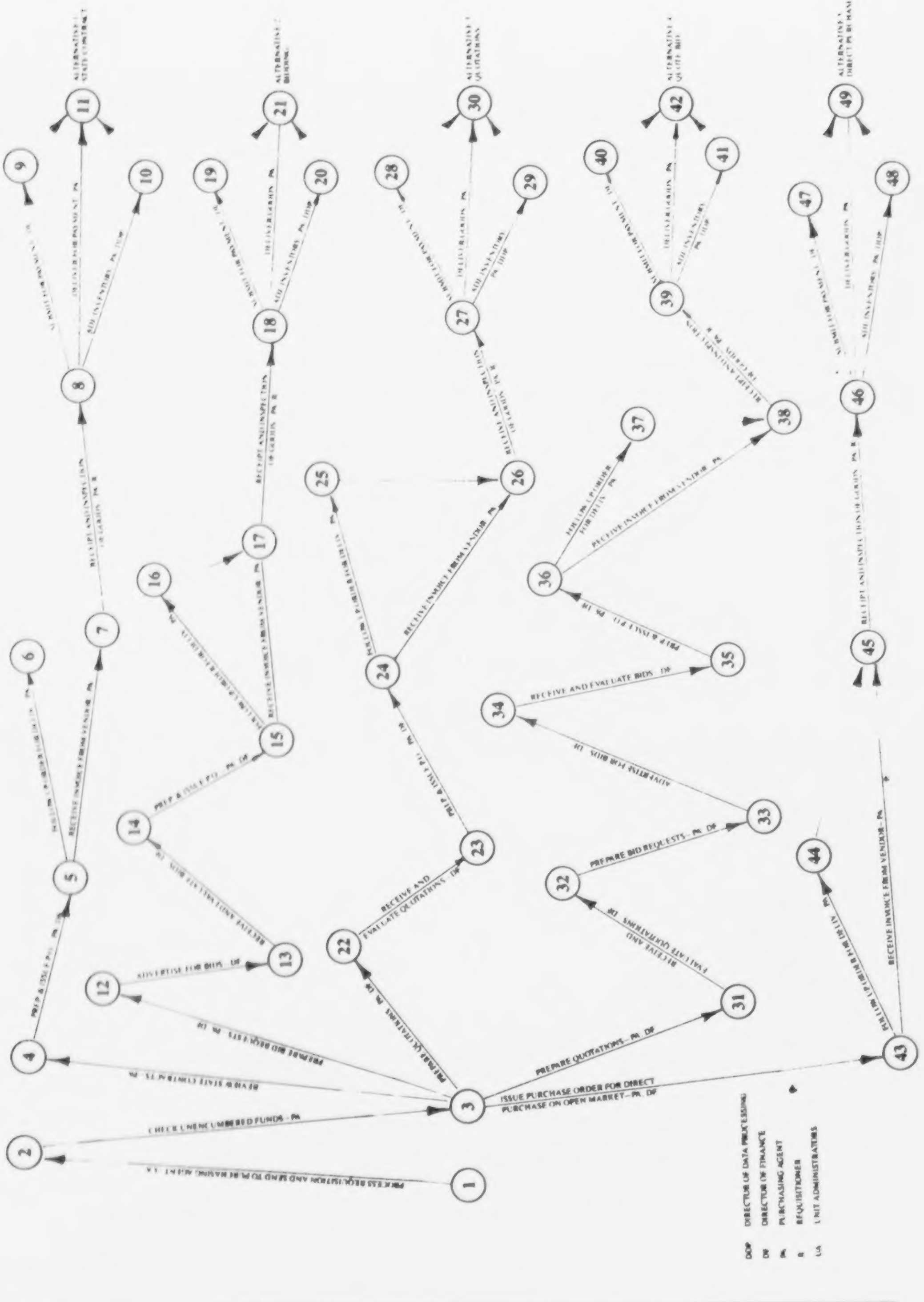
Standardized lists of supplies and equipment can be helpful to the district by facilitating the competitive bidding process and avoiding a lot of special order type items.

Burrup lists the following benefits of standardization:

1. Allows lower costs from bids on large quantities of one item.
2. Reduces and facilitates repairs and replacements.
3. Reduces inventories, thereby reducing storage costs, and at the same time increases the amount of school funds available for other purposes.
4. Speeds delivery of materials or equipment.
5. Reduces the number of materials and equipment for which specifications must be written.
6. Reduces the work of the purchasing department, including that of business office record-keeping.[13]

When developing standardized lists, the personnel concerned must be involved in determining the standards and specifications of the items.

Some states also allow for a school district to standardize on a specific kind of equipment or supply by having the board of education of that district adopt by at least a two-thirds vote of its members, a resolution indicating the need for standardization. This does not, however, eliminate the need for competitive bidding but permits the purchase of a specific make and model. Some reasons for such standardization may include interchange ability of parts or matching of existing furniture. Examples may include school buses and microcomputer equipment.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PROCESS REQUISITION AND SEND TO PURCHASING AGENT—UA
CHECK UNENCUMBERED FUNDS—PA
ISSUE PURCHASE ORDER FOR DIRECT PURCHASE ON OPEN MARKET—PA, DF
PREPARE QUOTATIONS—PA, DF
PREPARE BID REQUESTS—PA, DF
ADVERTISE FOR BIDS—DF
RECEIVE AND EVALUATE QUOTATIONS—DF
PREPARE BID REQUESTS—PA, DF
RECEIVE AND EVALUATE BIDS—DF
RECEIVE INVOICE FROM VENDOR—PA
ALTERNATIVE 1 STATE CONTRACT
ALTERNATIVE 2 BIDDING
ALTERNATIVE 3 QUOTATIONS
ALTERNATIVE 4 QUOTE BID
ALTERNATIVE 5 DIRECT PURCHASE
DDP DIRECTOR OF DATA PROCESSING
DF DIRECTOR OF FINANCE
PA PURCHASING AGENT
R REQUISITIONER
UA UNIT ADMINISTRATORS

Figure 18:1 Activities Related to Purchasing and Lines of Responsibility

plies for the maintenance department. The period of time covered by a blanket purchase order, as well as the amount and names of authorized individuals, is determined by the purchasing agent. The department must maintain a record of purchases to ensure they do not exceed the amount allowed by the blanket purchase order. In addition, when supplies are delivered or picked up, receipts, delivery slips or other documents must be obtained and the blanket purchase order number should be placed on the documents. These documents will be attached to the receiving copy of the purchase order and forwarded to the purchasing agent at the end of the period for which the blanket purchase order was issued. If, however, the amount allowed is reached prior to this time, the covering documents should be forwarded to the purchasing agent and a new blanket purchase order requested.

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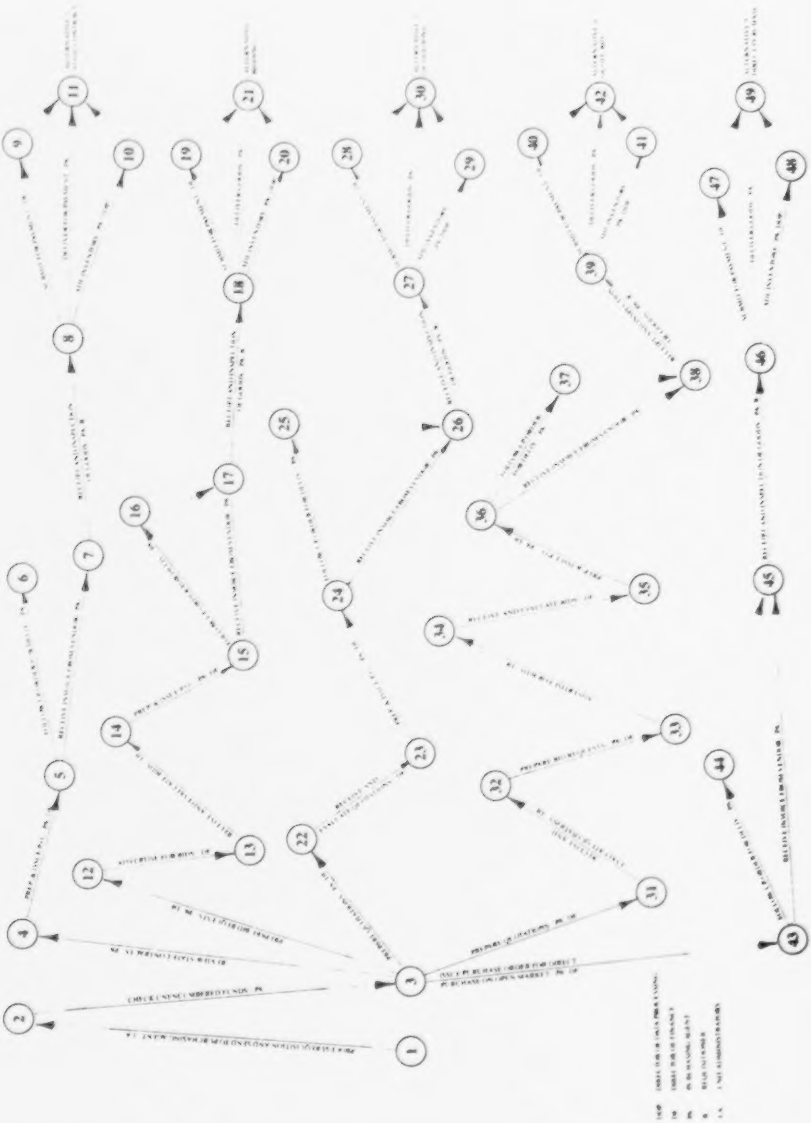
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Figure 18:1 Activities Related to Purchasing and Lines of Responsibility

Procurement Procedures

The purchasing process is not an isolated management function of the business office but involves close working relationships with other departments of the school district. The staff needs of various teachers in various departments at various grade levels must be taken into consideration. Communication must be open among the users of the materials, various school officials and various vendors.

Fundamental Concepts

Procuring supplies and equipment goes beyond the simple process of placing an order with a vendor. Burrup and Brimley explain the process of purchasing:

> Involved in the complicated process of purchasing are such problems as determining what is needed and in what quantity and quality, synchronization of the time of need and the time of delivery, providing the quality of the product needed without overspending the amount budgeted, storing what is required withtout keeping too much money in vested in inventories, keeping unsuccessful bidders happy when they cannot complete successfully, and satisfying school personnel when recommended brands of items are not purchased or deliveries are late or some other reason prevents delivery of essential materials or equipment.[14]

A purchasing manual developed by the Kentucky School Business Officials Association and Kentucky State Department of Education lists four basic principles of procurement.

1. Buy the quality standard for the purpose required.
2. Have the product or service available at the time and place requested.
3. Purchase on the most feasible and economical basis.
4. Purchase from the lowest responsible bidder meeting the required specifications.[15]

The California Association of Public School Business Officials lists the following procedural principles:

1. Accomplishment of definitive objectives in the shortest possible time and the easiest manner consistent with accuracy and efficiency.
2. Simplification of tasks to speed operations and reduce potential for error.
3. Establishment of procedures that are definitive and understandable, and will eliminate friction, duplication and confusion.
4. Place responsibility for each step of performance.
5. Establishment of procedures that are flexible enough to allow for expansion as the district grows.
6. Provide a purchasing system that is economical and consistent with the job to be done.
7. Ensure that the procedures are adequate to carry out the tasks for which they were developed.

One of the terms heard often in the management world is accountability. In the public school sector accountability is being demanded by taxpayer groups, boards of education, state and federal legislative bodies. Burrup and Brimley relate the demand for accountability to the procurement function:

> The direct charge of accountability now being emphasized in education may well start with the purchasing and procurement of school materials. It is among the first of the school's business operations to be studied and improved when the sometimes insistent pressure of public opinion is directed toward economizing school business operations.[16]

Saunders explains the role that accountability plays in promoting public confidence:

> Purchasing is public business; and only by establishing procedures which provide full disclosure and open competition will it be considered above reproach by both the public and business community.[17]

Accountability has encouraged the purchasing department to develop procedures that result in a more cost effective and controlled operational system.

Steps in the Purchasing Function

Differences in the size of a school system, various state laws and regulations and administrative organizational structure may necessitate variations in purchasing ing procedures. It is not possible to establish an "absolute" system of purchasing procedures for all school districts. Procedures that work well for one district may be inadequate or too complex for another district.

Condoli summarizes the fundamental objectives for a purchasing department as follows:

1. To plan a program of educational materials and equipment procurement that will optimize the educational output of the system.
2. To maintain continuity of supply to support the educational program, with the minimum in inventory consistent with educational need, safety and economic advantage.
3. To avoid duplication, waste and obsolescence of materials and equipment.
4. To maintain standards of quality in relation to suitability of use.
5. To acquire materials and equipment at the lowest cost consistent with quality and service required.
6. To help the educational system maintain maximum instructional efficiency at all times.[18]

The procurement function is generally considered to cover the complete supply transaction beginning with the recognition of a certain need and ending with the approval of a claim voucher for payment. The following ten steps describe in detail the school procurement process:

1. *Recognition of a Need.* The first step in the purchasing process begins when someone in the district recognizes a specific need for a supply, equipment item or type of service. This could be anyone in the district—teacher, principal, aide, clerk or custodian.
2. *Processing of Requisitions.* Requisitions to supply a specific need are initialed by the user (teacher, principal, custodian or stockroom clerk) and forwarded to their supervisor for review and approval.
3. *Preparation of Specifications.* Before an order is placed or a quotation requested, the purchasing official must describe what is desired in order that prospective vendors may intelligently quote prices and fill orders.
4. *Request for Bids or Quotation.* The purpose of obtaining bids or quotations is to encourage competition in the procurement of supplies, equipment and services. It also allows the discovery of what a given item will cost, where it can be obtained most economically and when delivery will be made. Rec-

ommendations will be made to the board of education on formal bids.

5. *Issuance of Purchase Order or Award of Contract.* Purchase orders are signed by the purchasing official and issued from the purchasing office, subject to the purchasing policies of the district. All contracts which require public advertising a competitive bidding must be awarded or rejected by resolution from the board of education. Certified checks and bid bonds received from unsuccessful bidders should be returned. A regular purchase order is then issued after award by the board of education.
6. *Follow-up of Order for Delivery.* The purchasing official has the responsibility for following up contracts and orders to expedite delivery. The requisitioner should be kept advised as to the status of the requisition and purchase order. Contact with vendors should be limited to the purchasing official only.
7. *Invoice from Vendor.* When the invoice and/or claim form is received from the vendor, the purchasing official should review it to verify that the price agrees with quotations or contract figures and the terms of the order, including f.o.b. shipping or delivery point.
8. *Receipt of Goods.* Upon receipt, goods should be checked for condition and for quantity and quality as stated in the purchase order or contract. This is accomplished by having the requisitioner send the receiving copy of the purchase order and the packing slip to the purchasing office as evidence of receipt of goods and materials. Each of the items must be signed by the administrator and have indicated on the document "received and accepted." In the case of partial orders, a signed packing slip will suffice. If the order is not acceptable, notify the purchasing office.
9. *Quality Control.* Items should be tested for conformity with specifications based on needs or use.
10. *Approval for Payment of Invoice or Claim.* The final step in the purchasing procedure is the approval of the invoice or claim for payment, either by the board of education or the internal auditor. Prompt payment of claims could mean taking advantage of discounts which resulting in substantial savings.

In order to properly execute these basic steps in the purchasing process, it may be necessary to develop as a part of the purchasing system some general operating procedures. The following are basic procedural statements which could appear in a purchasing operations manual:

1. Only the person designated by the board as purchasing agent may commit the district to a purchase.
2. The materials, equipment, supplies and services to be purchased shall be of the quality required to serve the function in a satisfactory manner, as determined by the requisitioner and the purchasing agent.
3. It is the responsibility of the requisitioner to provide an adequate description as required by the purchasing agent, so that he or she may be able to prepare the specifications and to procure most expeditiously and economically the desired commodity and/or service.
4. It is the responsibility of the purchasing agent to make alternate suggestions to the requisitioner if, in the judgment of the purchasing agent, the specifications would restrict competition or otherwise preclude the most economical purchase of the required items. In the case of disagreement, either party may refer the matter in accordance with established procedure.

5. When a low bidder proposes an alternate as "an equal" to that specified, it is the responsibility of the purchasing agent to determine whether the proposed substitution is, in fact, an equal. Such decision shall be based on his or her evaluation and that of the requisitioner. In the case of disagreement between the requisitioner and the purchasing agent, either party may refer the matter in accordance with established procedure.
6. Each building should designate a person to act as building purchasing contact to whom all correspondence and inquiries should be made from both within the building and from the purchasing office.
7. Once items are delivered to the building, the security of those items becomes a building responsibility.
8. All correspondence with vendors regarding placement and status of orders will be handled by the purchasing office. No orders are to be picked up by individuals without prior authorization of the purchasing office.
9. To the extent possible, the purchasing department will try to adhere to a bid calendar in which various categories of purchases will be planned at designated times throughout the school year. This will provide for cyclical purchasing in which certain items can be purchased off season when prices may be lower and deliveries more complete and accurate.

The steps and procedures are a part of a total purchasing system developed to accomplish the necessary transactions to obtain the needed supplies, services and equipment as quickly, accurately, economically and efficiently as possible.

Statutory Requirements

The authority for school district purchasing is granted through statutory laws of the state and rules and regulations of the various state departments such as the state department of education and the department of audit and control. Local district policy also governs purchasing practices of the local district. Such laws and regulations concern such things as limits on bid amounts, advertising requirements, collusion statements and tax exemptions. Purchasing officials must familiarize themselves with the various statutory requirements before committing the district to any goods and services.

Purchase orders become contracts for the purchase of materials under stated terms and conditions and contracts serve as legal documents for obligations between the parties. The purchasing official should consult with the school board's attorney on the purchasing procedures and requirements so that the purchasing function is conducted within the scope of federal, state and local laws and regulations.

Administration of the Procurement Process

The purchasing official for the school district must deal with all aspects of the district, both educational and non-educational. This requires close work and coordination with various levels in the school system's administrative organization and requires the purchasing function to be integrated with all phases of the school operations. Throughout the procurement process, decisions must be made on such matters as quality, quantity, price and source.

Establishment of Authority

The organizational relationship of the purchasing official to all other school administrators must be clearly delineated and the scope of authority of the person clearly defined and understood. The local school board should designate by formal resolution the purchasing agent of the district. In many cases this is the same individual responsible for the administration of the business affairs of the district, such as the school business administrator. In large districts it could be a separate designated full-time position responsible to the school business administrator. The designated individual is the only employee with authority to contract for supplies, equipment, and services of the district. Only orders for goods and services that have been approved by the purchasing agent become obligations of the district and give rise to a claim against the school district. It is upon the authority of his or her signature that a purchase order becomes approved and issued, thereby creating a district obligation.

The purchasing transactions of a school district must be centralized to provide for control and efficiency of operation. Systems and procedures must be developed that provide an efficient means for being responsive to the various needs of the different departments in the organization, and at the same time provide the necessary control for managing the funds of the district. "Purchasing efficiency in institutional and governmental administration helps to make the materials dollar go farther, thereby either reducing the necessity of raising additional funds by taxation and appropriations or releasing available funds for an extension of services."[19]

Burrup & Brimley define the measure of efficient purchasing in an organization as "having a particular item in the right place at the right time, having been procured at a fair price."[20] The purchasing agent of the district must provide for an efficient operation through his knowledge of marketing conditions and needs of the district's programs.

The Act of Purchasing

In order to provide for an efficient procurement operation with the proper authority and delineation of responsibility, it is necessary to have written policies establishing the procedures used in purchasing of goods and services for the district. Written policies provide for a systematic process built around established procedures. Local policies in conjunction with state and federal law and various regulations of state departments provide the framework for an operation in which the purchasing agent can exercise professional judgment in administering his duties and responsibilities for the procurement of goods and services of the district. These policies may then be developed into districtwide procurement regulations and guidelines. Some of the areas for which guidelines should be provided are listed in table 18:1.

TABLE 18:1
Purchasing Systems Manual Table of Contents

I. THE PURCHASING FUNCTION
    Introduction
    Purchasing Guidelines
    Methods of Purchasing
    Steps in the Procurement Process
    Purchasing Practice
    Purchasing Procedures
II. OPERATIONAL PROCEDURES

Preparation of Purchase Orders
Cancellation of Purchase Orders
Outstanding Purchase Orders
Special Item Requisitions
End of Year Transactions

Purchasing Guidelines

1. The purchasing agent is appointed by the board of education and is responsible for developing and administering the purchasing program of the school district.

2. Competitive bids or quotations shall be solicited in connection with all purchasing whenever possible. Contracts shall be awarded to the lowest responsible bidder complying with specifications and with other stipulated bidding conditions.

3. The purchasing agent is authorized to issue purchase orders without prior approval of the board of education where formal bidding procedures are not required by law, and when budget appropriations are adequate to cover such obligations.

4. All purchase contracts for materials, equipment or supplies involving an annual expenditure over $5,000 and all public work contracts involving expenditures over $7,000 shall be awarded on the basis of public advertising and competitive bidding. The purchasing agent (or other designated person) is authorized to open bids and record the same pursuant to law.

5. All contracts which require public advertising and competitive bidding shall be awarded by resolution of the board. Recommendations for the award of all such contracts shall be submitted to the board by the purchasing agent.

6. Residence or place of business of local bidders may be a consideration only in cases where identical bids have been submitted.

7. Purchases shall be made through available state contracts of the Division of Standards and Purchasing through the State Office of General Services whenever such purchases are in the best interest of the school district. Also, purchases of prison-made and blind-made products may be purchased through the appropriate agencies without competitive bidding.

8. Items commonly used in the various schools or units thereof shall be standardized whenever consistent with educational goals and in the interest of efficiency or economy.

9. Petty cash funds shall be established annually in accordance with the regulations of the board and the Commissioner of Education.

10. The purchasing procedures employed shall comply with all applicable laws and regulations of the state and Commissioner of Education.

11. A statement of "General Conditions" shall be included with all specifications submitted to suppliers for their bids. These general conditions shall be incorporated in all contracts awarded for the purchase of materials, equipment and supplies.

12. Opportunity shall be provided to all responsible suppliers to do business with the district. To this end the purchasing agent shall develop and maintain lists of potential bidders for the various types of materials, equipment and supplies. Such bid lists shall be used in the development of a mailing list for distribution of specifications and invitations to bid. Any supplier may be included in the list upon request.

13. No board member, officer or employee of this school district or their families shall be interested financially in any contract entered into by the board of education.

Management of Purchasing

In order for the purchasing process to be initiated, an appropriation for the requested goods and services must be available. This requires the integration of the budgeting function with the purchasing function. The budget development process must provide for educators to plan their program needs in such a manner that they are reflected in the various budgetary appropriations. The budget becomes the financial plan for the education program and should strike a balance between 1) the educational needs of the school system and its ability to support those needs and 2) the quality of goods and services and the economics of those goods and services.

Once the budget is approved by the district, the purchasing of supplies, equipment and services reflected in the budget appropriations is initiated. The purchasing agent will be responsible for the coordination of the implementation phase of the budgeting process which includes the purchasing function. The budget becomes a management tool for planning, organizing and controlling district operations which includes the purchasing process. In order to achieve the necessary controls the budgeting system must be integrated with the district accounting system.

Encumbrance accounting is a procedure which provides for control of budget expenditures by reserving funds for various district purchase orders. It obligates a portion of an approved budget appropriation for purchase commitments made by the district. Once payment is made for the goods, the encumbrance is adjusted to reflect the actual expenditure. This provides the purchasing agent with current information on the status of various budget appropriations.

The National Association of School Business Officials in its *Purchasing and Supply Handbook*, outlines the following procedures for maintaining adequate budgetary and accounting control:

1. All purchases should be based on purchase orders initiated by those having appropriate authority.

2. Purchase orders should be approved through one central office by those having appropriate authority.

3. Purchasing practices should be reviewed periodically in order to disclose inequities.

4. Incoming merchandise should be controlled by the preparation of a receiving report.

5. Vendor invoices should be mailed directly to the account department for verification with the purchase order and receiving report.

6. Invoices should not be recorded as a liability until properly approved.

7. Adequate separation of accounting, purchasing and receiving duties should be provided.

8. Prompt payment of vendors' claims is necessary.[21]

The purchasing procedures of a district and the approved budgetary appropriations must be coordinated and monitored as part of the budget administration process.

Program cost accounting may be accomplished by developing a coding system. The level of detail is based on the needs of the district. The code may be designed so that a portion of it could represent the functional area of expense such as instruction or transportation. Another part could indicate the object of expense such as supplies, equipment or salaries. Also, a location may be designated representing for example the high school, middle school or central office. Program coding can be a means for costing out a given instructional program such as mathematics or industrial arts. Further enhancement of the coding structure can provide an initiator designation for indicating the individual having authority to initiate requests for purchase. The extent of code development is limited only by one's imagination and a district's processing capacities.

The following fifteen digit code could incorporate the various concepts:

function object location program initiator

For example, the code 2110 200 03 1028 16 could represent the following cost accounting:

2110	Regular Day School Instructional Program
200	Audio-Visual Equipment
03	Middle School
1028	Advanced Placement Math Program
16	Director of Mathematics

A more simplified design could be developed for districts not requiring as much detail. For example, in the code 2110 204 06 the object code incorporates the program area and the initiator code is omitted representing the following cost accounting information:

2110	Regular Day School Instructional Program
204	Science Equipment
06	Kathy Elementary School

The size of the district, its administrative organizational structure and various state and local policies and regulations are some of the factors which should be taken into consideration when designing a codification system. The system should also allow for cost analyses and other management reports.

Warehousing and Distribution

Once the ordered supplies have been received by the school district, the purchasing agent must manage the supply storage and distribution processes. Whether a centralized or decentralized supply management operation is utilized depends largely upon the size of the school system.

Supply Storage

One of the first decisions a school system must make is whether to use centralized storage facilities or decentralized site-based storage facilities. Decentralized storage and warehousing allows for the receiving and storing in each individual school of all materials needed by that school. Centralized storage provides a warehouse for receiving and storing of all goods purchased by the district. Factors which must be taken into consideration are the annual consumption of various supplies and the extent of standardization of supplies. There are no definitive factors which clearly indicate when one storage facility is more effective than another.

The Association of School Business Officials discussed the advantages of centralized and decentralized storage in its *Purchasing and Supply Management Handbook*. A summary of the advantages are as follows:

Advantages of Centralized Storage

1. Flexibility of purchasing allows large volume orders to be placed at any time of year thereby providing opportunity for savings in supply expenditures.

2. An adequate and periodic supply of materials can be provided with minimal storage in schools.

3. Purchases can be scheduled to avoid ordering during suppliers' peak seasons, thereby allowing more timely deliveries and minimization of back orders.

4. Adequate inspection and quality control can be maintained in a systematized manner.

5. Centrally controlled supply inventory records can facilitate studies of consumption, price trending, usefulness of materials, standardization, delivery times, demand pattern, and serve as a basis for scheduling purchases.

6. Centralized storage of frequently used supply items combined with a reliable distribution system can eliminate the need and temptation to hoard and stockpile materials thus reducing loss resulting from obsolescence and waste.

Advantages of Decentralized Storage

1. Reduces school district supply costs by reducing or eliminating intra-district deliveries and operating costs of a central warehouse.
2. Reduces administrative and clerical costs for a central warehouse; however, results in more school unit duties for administrative and clerical staff related to processing of orders, inventory and control.
3. Due to limited storage space in school districts, storing large volumes of supplies may not be feasible and it may actually be less expensive to provide limited school storage space than to build a warehouse.
4. Standard purchasing contracts with vendors providing periodic deliveries throughout the year can eliminate the need for a central warehouse. This, in effect, uses the vendors' storage as an extension of the school system's storage facilities.
5. Obsolescence can be reduced by making frequent purchases of supplies delivered directly to the user.

Distribution and Inventory

Once materials and supplies are received at a central warehouse or building sites, a system of distribution is needed to assure the various materials reach the source of need. Plans for the distribution of educational materials should include use of requisitions, flow charts, records of distribution and inventory records. A central store catalog is useful for requisitioning items from a central warehouse. The catalog can be broken down by various categories and incorporate a coding system for use by staff and for purposes of inventory control. When filling orders, items should be properly packaged, identified and accounted for from point of distribution to point of use.

An adequate inventory control system for maintaining records of supplies and equipment is a necessity. Such a system should provide for the maximum utilization of school materials and supplies, as well as avoid delaying or hampering the educational process due to lack of needed supplies.

Condoli lists ten advantages of inventory control:

- Expedites educational planning throughout the system.
- Promotes buying economies by determining needs scientifically.
- Prevents duplication in ordering because it offers a clear picture of present materials available throughout the system.
- Facilitates the exchange of materials and equipment throughout the system.
- Minimizes losses from damage due to transit.
- Reduces losses from mishandling and theft.
- Aids cost accounting and the development of a program budgeting system.
- Aide in cost comparison between and among programs and departments.
- Provides data for perpetual inventories and therefore can lead to reduced insurance costs.
- Minimizes the investment in inventory.[22]

There are two basic types of inventory systems: *perpetual inventory* and *periodic inventory*. The perpetual inventory system provides an up-to-date, continuous tabulation of materials on hand, thereby reflecting the current stock and distribution status. It is most suited for the centralized storage and warehousing concept. Periodic inventory provides an accurate accounting of stock only after an actual physical inventory count and is most suited for use with annual requisitioning or once-a-year large orders.

The purchasing official must be responsible for safeguarding public funds and hence materials and supplies. Adequate records of supply inventories is strategic to maintaining needed safeguards. Various computer models for inventory control are available and may be used to expedite the process and provide greater efficiency and economy in inventory control, thereby, enhancing the educational program.

Purchasing: A Systems Approach

The purchasing function can be treated as various systematic techniques applied to the procedures and processes involved in the procurement and distribution of educational goods. The techniques may involve computer applications as well as other related mathematical principles and models.

The systems approach provides a methodical investigation and analysis of the various components and processes within the purchasing function. The relationships of various tasks with organizational structure is the basic emphasis in systems thinking. Kershaw and McKeon explain systems analysis as follows:

> Essentially, systems analysis is the comparison of alternative means of carrying out some function, when those means are rather complicated and comprise a number of interrelated elements. Such analysis could often be called "economic analysis," since the aim is to find the best use of one's resources, but the word *systems* is useful in calling attention to the complex nature of the alternatives being compared.[23]

McManama lists five conditions lending themselves to the application of a systems approach:

1. When complex interrelationships are involved which are difficult to manage, especially when things go wrong.
2. When otherwise simple interrelationships occur simultaneously making it difficult or impossible to correct for deviations without stopping the operation.
3. When critical feedback control must occur instantly.
4. When it is imperative to detect *all* of the social consequences of the system.
5. When it appears that the present operation could be improved by introducing any of the above elements.[24]

Functional Analysis

The purchasing function of the school district, which begins with the recognition of a need and ends with paying of an invoice, must be governed by a system of procedures needed to accomplish the tasks necessary to procure the goods and services, in order to operate efficiently and accurately.

In order to evaluate the efficiency and adequacy of the purchasing operation, one should analyze the processes of each phase of the operation and examine what changes, if any, in procedures would allow the department to function more effectively. The procedures must be designed to fit the needs and organizational structure of the district, recognizing that there is no one specific procedure for all districts.

An analysis of the work flow is helpful in understanding the purchasing processes. Figure 18:2 illustrates the interface between the purchasing processes and budgetary control. Similarly, the bidding and quotation process can be represented in flow chart fashion as indicated in Figure 18:3 to provide information which will assist in the analysis of that process.

Organizational Analysis

The organizational structure of purchasing departments vary with the size of the school system. The efficiency and effectiveness of the purchasing function will depend somewhat on the organization of the operation. The work flow is affected by the organization of tasks and assignment of responsibility. As changes occur in various rules and regulations governing the purchasing operation and as procedures are altered to conform with these changes, the organization of the purchasing operation becomes subject to modification and improvement.

A functional analysis of a supply management system first requires an understanding of that system. According to Hentschke:

> It is a truism that before the operating efficiency of a supply management system can be evaluated it must be "understood." There are many dimensions of supply systems and a number of perspectives from which to view it. For example, attention could be focused on personnel interaction using a social-psychological perspective. A second perspective could be limited strictly to that of the person requesting supplies, in which case all operations not directly involving that individual become obscure. "Understanding" in this context of supply management takes on a highly specific meaning; that is, attempting to comprehend how the supply management system operates *as an information system*.[25]

A linear responsibility or Gantt chart is also useful in analyzing various operating procedures within the purchasing function of a school system. By detailing each task and relating it to specific organizational positions, interrelationships can be seen clearly. Such charts not only illustrate the interactions among different roles, but also distinguish between instructional and business decisions and indicate areas of support available from data processing.[26]

Procurement Systems Management

Incorporating the computer into the purchasing process will improve the efficiency and accuracy of the work flow. Tempkin and Shapiro discuss four ways to tie the computer into the purchasing process:

1. Supply specifications are stored into the computer.
2. Requisition forms are printed by computer from the specification files. Quantity requests from schools are entered into the computer.
3. The computer compiles and totals various items and prints formal "Invitations to Bid."
4. After bids are evaluated, awards are made by entering into the computer the bidder's name, brand and price.[27]

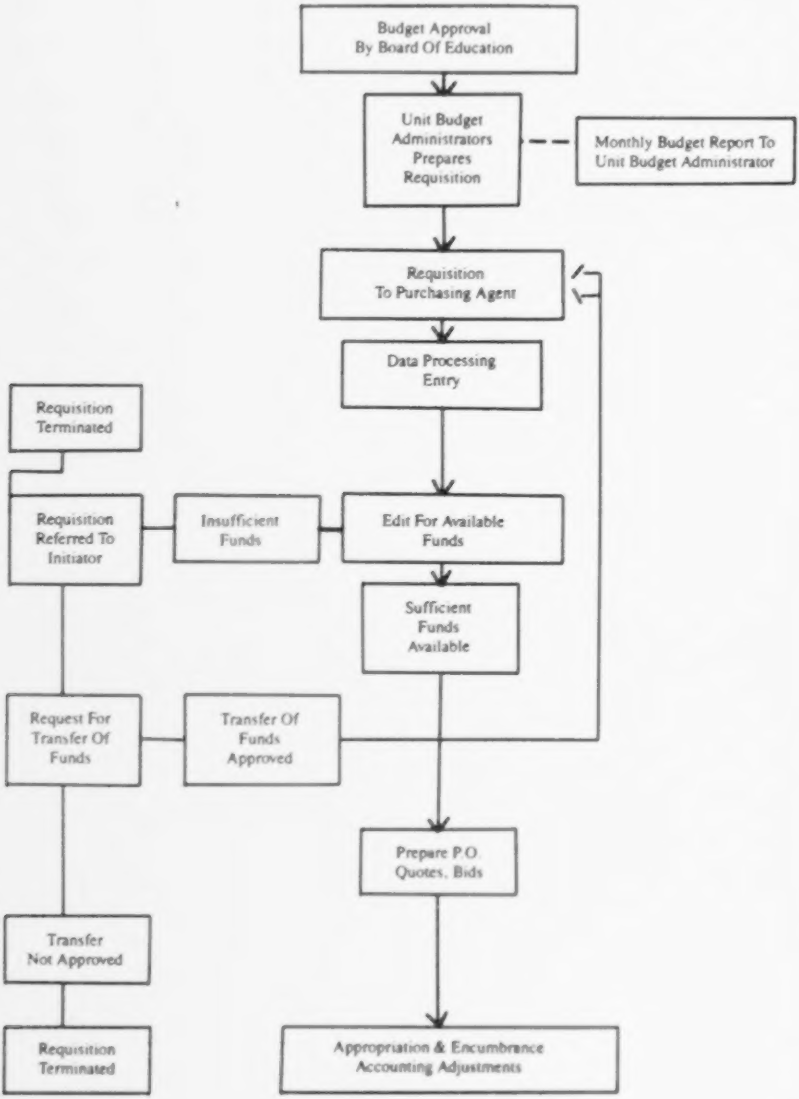

Budget Approval By Board Of Education
Unit Budget Administrators Prepares Requisition
Monthly Budget Report To Unit Budget Administrator
Requisition To Purchasing Agent
Data Processing Entry
Requisition Terminated
Requisition Referred To Initiator
Insufficient Funds
Edit For Available Funds
Sufficient Funds Available
Request For Transfer Of Funds
Transfer Of Funds Approved
Prepare P.O. Quotes, Bids
Transfer Not Approved
Requisition Terminated
Appropriation & Encumbrance Accounting Adjustments

Figure 18:2 Budget Control and the Purchasing Process

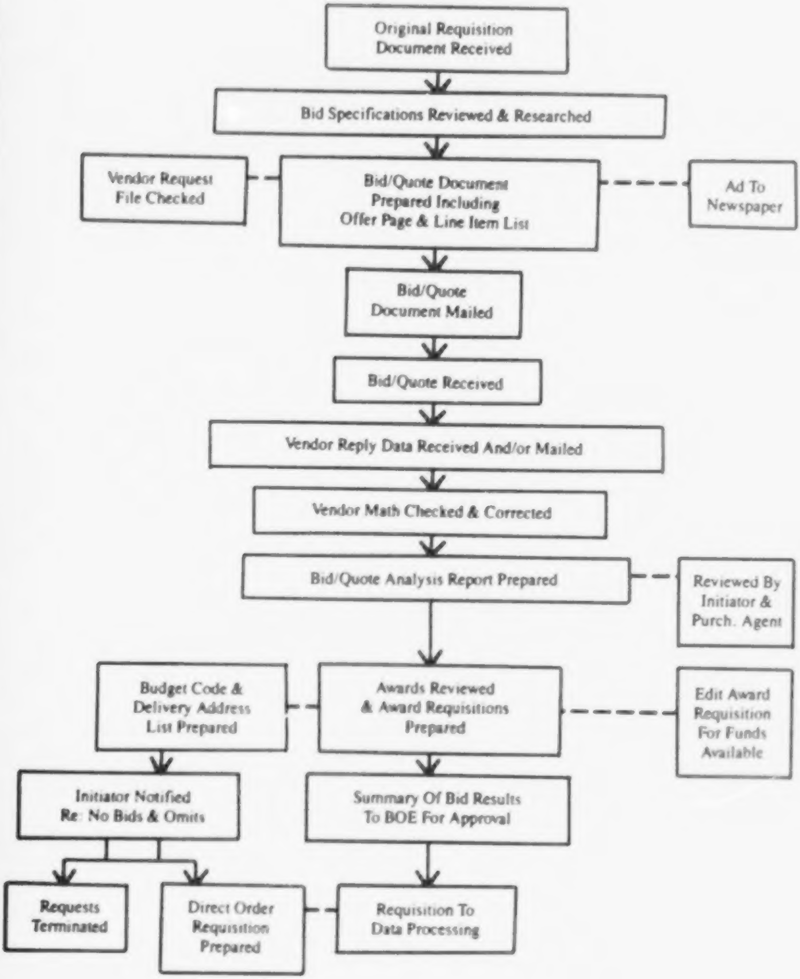

Original Requisition Document Received
Bid Specifications Reviewed & Researched
Vendor Request File Checked
Bid/Quote Document Prepared Including Offer Page & Line Item List
Ad To Newspaper
Bid/Quote Document Mailed
Bid/Quote Received
Vendor Reply Data Received And/or Mailed
Vendor Math Checked & Corrected
Bid/Quote Analysis Report Prepared
Reviewed By Initiator & Purch. Agent
Budget Code & Delivery Address List Prepared
Awards Reviewed & Award Requisitions Prepared
Edit Award Requisition For Funds Available
Initiator Notified Re: No Bids & Omits
Summary Of Bid Results To BOE For Approval
Requests Terminated
Direct Order Requisition Prepared
Requisition To Data Processing

FIGURE 18:3 Bidding and Quotation Process

Once the awards are complete, the total amount of requests for various buildings can be checked against their approved budget appropriations for sufficiency of funds. This links the purchasing function to the budgetary process. When insufficient funds are available, specific orders can be rejected and the requisitioner directed to adjust the order or secure additional funding. Once the appropriations are justified to meet the purchasing obligations, the computer can print up purchase orders for processing.

Systems application utilizing operations research theory can be applied to the purchasing function for developing optimum ordering strategies. Once determinations of the quality of types of goods has been made, the basic supply management decision of how much to order and when to order or reorder must be decided. Decision rules can be formulated such as "when the inventory level of supply item A is at x units, order a new shipment of y units." The optimum economic order quantity and reorder point must be determined.

The determination of optimum ordering quantity requires a mathematical model. In order to illustrate the concept, let us consider a simplified example. Assume a district orders two units of supply item A every two days and that exactly one unit per day will be demanded in the district. Also, the vendor guarantees to the district that time between placement of a new order and receiving of the order (lead time) is two days. The model is based on a uniform known rate of consumption and a constant known lead time. It is, therefore, referred to as an inventory system under certainty. See Figure 18:4.

Since the purchasing agent knows that daily demand is one unit and lead time is two days, there will never be a stockout. That is, the purchasing office will always be able to fill the requisitions by reordering whenever the inventory or stock level is at two units. The new order will arrive in two days when the two units on hand will drop to zero and at the same moment a new order will be received. An alternative policy could be to order twenty units of supply item A every twenty days. Figure 18:5 illustrates this policy.

The policy of ordering two units every two days will require the purchasing agent to place 182.5 orders per year for an annual demand of 365 units. While this results in a high cost for ordering, since more purchases are required, there is a low inventory holding cost, since the amount of inventory is small.

The policy of ordering twenty units every twenty days requires the purchasing agent to place only 18.25 orders per year, hence lowering the annual ordering cost significantly. However, the inventory holding cost will be substantially higher, with ten units being the average inventory as compared to an average of one unit under the first policy.

From the simplified example, it is apparent that low ordering cost is accomplished at the expense of high inventory holding cost and low inventory holding cost is accomplished at the expense of high ordering cost. The objective is to find a minimum cost point between the two extremes referred to as the "optimum order quantity." Determination of the optimum order quantity is a mathematical model involving such factors as unit cost of materials based on size of order, average inventory level, cost of processing a purchase order and cost of holding materials in inventory. The model is developed to minimize the total annual ordering and holding costs.

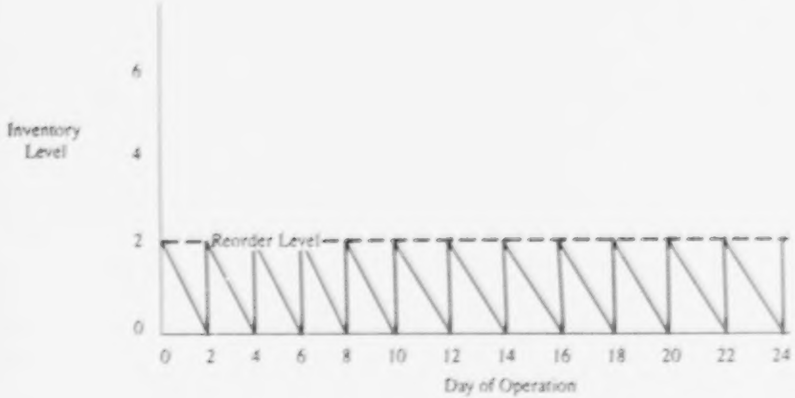
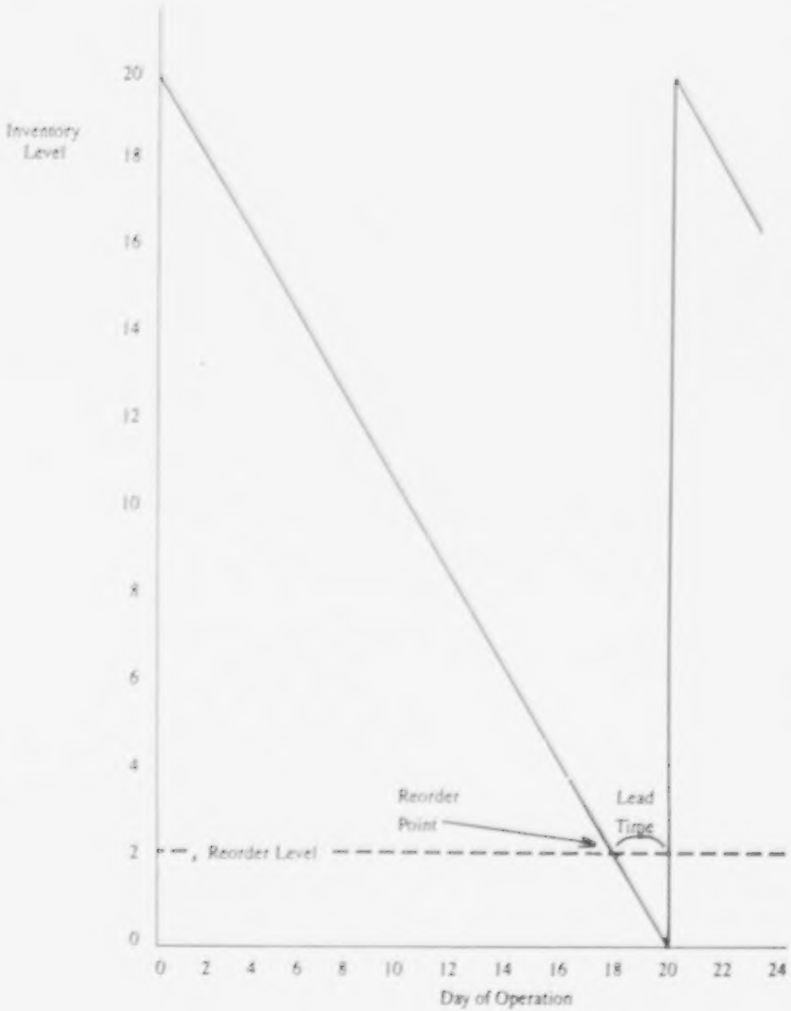


FIGURE 18:4 Inventory Curve Under Certainty Policy (Order Two Units Every Two Days)

FIGURE 18:5

Inventory Curve Under Certainty (Order Twenty Units Every Twenty Days)



Applications of operations research and use of calculus provide a means for developing a general mathematical model for use in determining the optimum ordering quantity.

Condoli provides the following formula for determining the optimum (economic) order quantity:

$$E = \frac{2\,UP}{I}$$

where: E = Economic Order Quantity (in dollars)
U = Annual usage (in dollars)
P = Cost of issuing a purchase order (in dollars)
I = Cost of carrying inventory (as a decimal percentage of value).[28]

A computer program can be developed from this formula and can itself serve as a general model in the same sense as the formula.

This model is based on various assumptions of demand and lead time, thereby enabling decisions to be made with those certainties. However, these assumptions are not always fixed. Demand rate may vary from one day to the next. Lead time between orders often varies and may result in a stock out. As a result, a model must be developed dealing with uncertainty of demand and lead time. Again, operations research and computers can help in developing a viable model that can be used to simulate the operation under the conditions of uncertainty and determine the optimum order quantity.

Purchasing Systems Manual

The purchasing procedures, rules and regulations must be communicated to all levels of the organizational structure of the district. Employees must be informed of the process and given the information needed to effectively procure their various needs and successfully perform their part in the educational organization.

A purchasing systems manual is an ideal way to inform all management staff and other employees of the school district about the district's procurement process. As indicated in the sample Table of Contents which appears in Table 18:1, the manual should include: information about state and local laws, regulations and policies concerning procurement; basic guidelines to follow when using the system; the steps of the procurement process; and purchasing practices and procedures. In addition, it should provide a detailed account of how to use the system and what to do in special situations. Persons responsible for various aspects of the process should also be indicated. The appendices should include a sample of the forms to be used (along with instructions on how to complete them and route them), and a copy of state and/or local written policies.

In addition to providing information and a means of communication, a written manual: provides for standardization of and consistency in policies and procedures; establishes uniformity within the process; and serves as an authoritative reference for management.[29]

In short, the manual represents the promolgation of the district's purchasing function in a single source document. As such, it becomes the written communications link among the school business office, central office administrators and supervisors, building administrators, teachers, vendors, school board and the community with respect to purchasing.

The development of a purchasing systems manual is a major task. Once completed and adopted, it must be maintained and updated to reflect changes in the laws, regulations, policies, procedures and organizational structure. After some use, the manual, itself, may need some alterations in format and content. It is important to remember that the manual is a dynamic and authoritative management tool requiring commitment from all sectors in its maintenance, application and enforcement.

NOTES

1. C.I. Candoli, W.G. Hack, J.R. Ray and D.H. Stollar, *School Business Administration: A Planning Aproach*, 3d Ed. (Boston: Allyn and Bacon, 1982.) 208.

2. Ibid., 203—204.

3. G.C. Hentschke, *Management Operations in Education* (Berkeley, CA: McCutchan Pub. Corp., 1975), 90.

4. Candoli, 204.

5. Ibid., 205.

6. Hentschke, 90.

7. Bureau of Bus. Practice, *Purchasing Agent's Desk Manual* (Waterford, CT, 1984.) 8-1.

8. Candoli, 211.

9. W.H. Roe, *School Business Management* (New York: McGraw-Hill Book Co. 1961.) 126.

10. J. Macaluso, "Model Procurement Code Allows Flexibility in Kentucky School Purchasing Operations," *School Business Affairs* (March 1982.) 17.

11. R.E. Munsterman, *Purchasing and Supply Management Handbook for Sch. Bus. Officials* (Reston: Assn. of School Business Officials, 1978), 49-50.

12. See R.C. Wood, "Competitive Bidding of Architectural Services," *School Business Affairs* (July 1985), 49-51.

13. P.E. Burrup and V. Brimley, *Financing Educ. in a Climate of Change*, 3d ed. (Boston: Allyn and Bacon, Inc., 1982), 365.

14. Ibid., 362.

15. Kentucky School Business Officials Ass'n and Kentucky Department of Education, *Purchasing Manual* (1975), 9-10.

16. Burrup, 362.

17. F. Saunders, Jr. "Accountability: The Big Word in Purchasing," *School Business Affairs* (March 1981), 12.

18. Candoli, 208.

19. Ibid.

20. Burrup, 363.

21. Munsterman, 40.

22. Candoli, 221.

23. J.A. Kershaw and R.N. McKeon *Systems Analysis and Education* (Santa Monica, CA: Rand Corp. Oct., 1959), 1.

24. J. McManama, *Systems Analysis For Effective School Administration* (West Nyack, NY: Parker Pub. Co., Inc., 1971), 19.

25. Hentschke, 112.

26. Ibid. See also Table 3: "Linear Responsibility Chart of School District Supply Management."

27. K. Temkin and P. Shapiro, "Computerizing Your Annual Purchasing," *School Business Affairs* (March, 1982), 18-20.

28. Candoli, 211.

29. See A.J. Andrews, *Journal of Systems Management* "Preparing and Using Administrative Manuals" (March, 1980), 15.

19

Fiscal Equity Challenges

Richard G. Salmon
Mary Jane Connelly
M. David Alexander

Commencing in the late 1960s and continuing into the present decade, a new form of litigation occurred in the federal and state courts of the United States. Prior school finance litigation was filed usually by aggrieved taxpayers, commonly from affluent school districts, who were unhappy with the manner in which taxes were collected and redistributed.

School finance litigation initiated in the late 1960s challenged the methods of distributing funds to public elementary and secondary schools because many state public school finance systems allowed considerable variance in financial resources per pupil. It had long been recognized by both citizens and professional educators that the quality of public schools depended upon the child's geographic location in the state. Frustrated by the unwillingness of the state legislatures to reform school finance systems to better equalize fiscal resources, and buoyed by a national atmosphere conducive to prompting individual rights and social equity, unhappy citizens sought remedies through the judicial process.

Beginning with *McInnis v. Shapiro,*[1] the highly publicized *Serrano v. Priest,*[2] and the United States Supreme Court's decision in *San Antonio v. Rodriquez,*[3] several federal cases and a plethora of state cases have challenged individual state school finance distribution systems in the United States.

Considerable variation existed in the manner in which the cases were prepared and presented to the courts. In some cases, the plaintiffs contended that they were denied equal protection under the federal Constitution and/or comparable provisions of the state constitutions, while other plaintiffs argued that the public education provisions of their state constitutions were not being satisfied by their current state school finance system. A few cases found their way to the United States Supreme Court, although most cases were decided in respective state judicial systems. While the United States Supreme Court ruled against those persons who challenged the constitutionality of individual state school finance programs, plaintiffs have both won and lost decisions in the state courts based upon state constitutional provisions.

The purposes of this chapter are threefold: first, the major federal cases dealing with fiscal equalization of state school support programs are reviewed; second, state cases are reviewed; third, the major legal issues that were addressed by both federal and state cases are summarized and discussed.

Review of the Federal Cases

The first fiscal equalization case to reach the United States Supreme Court was *McInnis v. Shapiro*[4] from Illinois. The plaintiffs sought a reduction of expenditure variation between local school districts and indicated that the variation in educational needs mandated consideration in the allocation of state revenues if equal protection under the Fourteenth Amendment would be satisfied. The United States District Court of the Northern District of Illinois experienced difficulty with what it viewed as a nebulous concept and indicated that there were no "discoverable and manageable standards" by which to determine whether the requirements of the Fourteenth Amendment were satisfied. In a critique of the decision, it was observed that "the two standards (posed by the plaintiffs) are mutually irreconcilable since educational needs may demand a much higher expenditure for certain children than for others."[5] The United States Supreme Court affirmed the lower court's decision without discussion and, by doing so, delayed the definitive ruling in *San Antonio v. Rodriquez*[6] for over three years.

In a similar case, *Burrus v. Wilkerson*,[7] actually filed a few days earlier than *McInnis v. Shapiro*, the plaintiff charged that the Virginia state school support program violated the Fourteenth Amendment to the United States Constitution since state aid was not allocated to local school districts on the basis of educational needs. In addition, the plaintiff questioned the measure (i.e., equalized property valuation per average daily attendance) used by the state to measure the fiscal capacities of the local school districts. In ruling that the system of financing public schools in Virginia was constitutional, the federal district court said:

> [T]he courts have neither the knowledge, nor the means, nor the power to tailor the public moneys to fit the varying needs of these students throughout the state. We can only see to it that the outlays on one group are not invidiously greater or less than that of another. No such arbitrariness is manifest here.[8]

As in the *McInnis v. Shapiro* case, the United States Supreme Court merely affirmed the district court's ruling.

In *Van Dusartz v. Hatfield*,[9] a United States District Court in Minnesota agreed with the plaintiff's contention that the wealthier school districts in Minnesota not only had greater revenue per child but also enjoyed a lower tax rate. The court found that the level of spending for publicly financed education in Minnesota is profoundly affected by the wealth of each school district.[10] Further, the court observed that a system of public school financing that makes spending per pupil a function of the school district's wealth violates the equal protection guarantee of the Fourteenth Amendment.[11]

In 1971, the United States District Court for the Western District of Texas, in *San Antonio v. Rodriquez*,[12] accepted the plaintiff's position that the state must exercise "fiscal neutrality" in financing public schools. Briefly stated, fiscal neutrality requires that the quality of public education be a function of the state as a whole and not a function of the wealth of the local school district. The court also accepted the plaintiff's contention that education is of fundamental interest to the state and should be examined by the courts on the basis of "strict scrutiny." However, when the case was appealed to the United States Supreme Court in 1973, the lower court's ruling was overturned, resulting in a shattering defeat for those advocating the egalitarian position. Specifically, the Supreme Court held that the right to an education is not a fundamental right explicitly or implicitly guaranteed by the United States Constitution. Since the Texas system did not violate the criteria of suspect class or fundamental right, the Court held that Texas was not obliged to show a compelling interest but only a rational relationship to the method of distributing state funds.

Since this definitive ruling by the Supreme Court, only one fiscal equalization case has entered the federal judicial system. In *Scarnato v. Parker,*[13] the plaintiffs challenged the constitutionality of the Louisiana minimum foundation program under the equal protection clause of the Fourteenth Amendment. However, citing *San Antonio,* the three-member federal court granted the defendants' motion to dismiss the suit in its entirety.

In conclusion, federal litigation regarding fiscal equalization has revolved around the standard of equality of educational opportunity and equal protection under the Fourteenth Amendment. Although equal educational opportunity is a socially worthy concept, it has been very difficult for the federal courts to identify an operational definition, as illustrated by the following confusing, and sometimes conflicting, statements by courts and litigants: "equality can be obtained by allowing local school districts the authority to tax themselves at sufficiently high levels to overcome wealth differences with other school districts;"[14] "equality can be attained by allocating resources on the basis of educational need;"[15] "equality may be accomplished by giving each student the same amount of money, one dollar—one scholar;"[16] "the state could allow unlimited local taxation but revenues earned in excess of a certain amount per pupil would be captured by the state;"[17] "equality requires that the state measure local school district wealth more accurately than by property valuations, possibly a combination of personal income and property;"[18] "equality assumes that poor children in all school districts are discriminated against, that all children regardless of wealth residing in school districts which fall below some predetermined wealth standard are discriminated against."[19]

The difficulty of providing an operational definition for the vague concept of equality of educational opportunity is not unique to the federal courts. Since state constitutions are more expansive than the federal Constitution, when the concept of equality of educational opportunity is coupled with even more nebulous phrases such as "primary obligation of the state,"[20] "general and uniform,"[21] and "thorough and efficient,"[22] conflicting state court decision are inevitable.

Review of State Cases

The first of the state fiscal equalization cases to gain national attention was the *Serrano v. Priest*[23] decision in which the California Supreme Court ruled that the method of funding public elementary and secondary education was unconstitutional. In this extremely controversial case, the court held that both the Fourteenth Amendment and the state equal protection clause were violated because the state school finance system made the quality of education a function of the local school district's taxable wealth:

> We have determined that this funding scheme invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors. Recognizing as we must that the

> right to an education in our public schools is a fundamental interest which cannot be conditional on wealth, we can discern no compelling state purpose necessitating the present method of financing. We have concluded, therefore, that such a system cannot withstand constitutional challenge and must fall before the equal protection clause.[24]

After the above ruling, known as *Serrano I,* the California Supreme Court remanded the case to the trial court with specific instructions. As a result of the California Supreme Court's ruling in *Serrano I,* the California legislature attempted to make the allegations moot by passing two bills which brought about significant changes in the public school financing system. Nevertheless, the trial court ruled that while the public school finance system was not in violation of the Fourteenth Amendment of the United States Constitution, it did violate the equal protection provision of the California Constitution. In addition to other specific instructions, the trial court allowed the legislature a period of six years in which to bring the school finance system into constitutional compliance and assured the legislature that the judgment did not require the adoption of any particular system of school finance.

The trial court's ruling was then appealed to the California Supreme Court and on December 30, 1976, the trial court's decision was affirmed and is referred to as *Serrano II.*[25] The court said that while there have been ". . . substantial increases in the foundation levels, those increases, considered alone, do not eliminate any of the constitutional features which existed at the time of *Serrano I.*"[26]

In 1972, the Michigan Supreme Court handed down a ruling similar to *Serrano* in the *Milliken v. Green*[27] decision. However, after first ruling that the Michigan system of financing public elementary schools was violative of the equal protection clause of the state's constitution, the court experienced a change of judges and the decision was vacated. In the new decision, the court ruled that the evidence did not prove that the equal protection of the children in low wealth districts had been violated.

> Without disagreeing with either theory of defining educational opportunity—inputs or outputs—we cannot accept without criticism either of the further-narrowed definitions offered by the parties. The reduction of the sum total output to the accomplishment of the pupils on a few achievement tests would be grossly unjust to both the educators and the pupils, for education must extend far beyond the limits of verbal facility or mathematical proficiency. With respect to the input received by a school, the level of taxable resources within a district is only one of the myriad inputs into an educational system.[28]

Shortly after the *San Antonio v. Rodriquez*[29] decision in 1973, the Arizona Supreme Court ruled that neither the equal protection clause of the state constitution nor the "general and uniform" provision had been violated in *Shofstall v. Hollins.*[30] The court modestly interpreted the "general and uniform" provision to mean that the state would provide a minimum school year, certify school personnel and establish requirements for courses. The Arizona court cited *San Antonio* and indicated that there was not a constitutional question unless there was absolute denial. The court elected not to enter into the "thicket" of fiscal equalization, educational need or fiscal neutrality. Instead, it was the opinion of the court that the state only had to provide for the rudiments of a system of free general education.

A state constitutional question regarding the financing of public schools was also raised in the 1973 case of *Blase v. State of Illinois.*[31] Specifically, the plaintiffs centered their case on the interpretation of a constitutional provision concerning the state's role in funding public education in Illinois. Article X, Section 1, of the 1970 Illinois Constitution provided:

> A fundamental goal of the People of the State is the educational development of all persons to the limits of their capacities.
>
> The State shall provide for an efficient system of high quality public educational institutions and services. Education in public schools through the secondary level shall be free. There may be such other free education as the General Assembly provides by law.
>
> The State has the primary responsibility for financing the system of public education.

The plaintiffs contended that the last sentence of Article X, Section 1, required that the state provide not less than 50 percent of the funds for public elementary and secondary education. The Illinois Supreme Court disagreed and ruled that the sentence in question was intended only to express a goal or objective and was not intended to be a specific command.

In the next major state fiscal equalization case, *Northshore School District No. 417 v. Kinnear,*[32] the petitioner proffered the following four contentions of unconstitutionality: 1) that children are denied equal protection of the laws in violation of the Fourteenth Amendment and comparable provisions of the state constitution due to a disparity of taxable resources per pupil; 2) that taxpayers in poorer districts are denied equal protection because they pay a higher tax rate than taxpayers in wealthier districts to raise the same amount of revenue per pupil; 3) that the state had failed to adhere to the provision of the Washington Constitution which reads: "It is the paramount duty of the state to make ample provision for the education of all children . . ."[33] and 4) that the state had failed to provide a general and uniform system of public schools as mandated by the state constitution.

The court rejected the first claim because the statistical evidence showed that the assessed valuation had little, if anything, to do with the quality of education. The court also indicated that there was no evidence to support the claim that one district or another provided superior or inferior educational opportunities.

In reply to the second contention, that the plaintiffs were denied equal protection, the court said:

> That it take more millage to raise the same amount of dollars on low valued property than it does on high valued property is no more than a meaningless truism and can be answered with another truism that the lower the value of one's property the lower one's taxes, neither truism having anything to do with the equal protection clause of both constitutions so long as everybody in the taxing scheme pays the same rate. Differences in assessed valuation per pupil among the various districts do not to a constitutional degree substantially affect the amounts of revenue per pupil available nor the amount expended per pupil; nor the cost per pupil in providing about the same quality of education throughout the state.[34]

The court noted that even if the state were converted into a single district to afford equal educational opportunities, expenditures per child would vary due to infinite variations in geography, climate, terrain, social and economic conditions, transportation, special services and local choices of extracurricula and other services.

The plaintiff's third contention, that the state failed to make ample provision for the education of all children, as provided by the state constitution, was also rejected.

> [A]lthough the state must assume the duty of making ample provision for the education of all children and is required to do so without discrimination as to race, sex, or national origin, constitutionally speaking, that duty or function is the same as any other major duty or function of state government.[35]

In reply to the fourth contention, that the state must provide a system that is general and uniform, the court said:

> A general and uniform system, that is, a system which within reasonable constitutional limits of equality makes ample provision for the education of all children, cannot be based upon exact equality of funding per child because it takes more money in some districts per child to provide about the same level of educational opportunity than it does others.[36]

The Washington Supreme Court indicated that a general and uniform system is a system that provides every child with free access to certain minimum and reasonably standardized educational programs. The court amplified the term "minimum program" by suggesting that public education should include instructional facilities offering educational opportunities up to at least the twelfth grade, with provision for a child to transfer between districts without loss of standing.

In 1975 the Idaho Supreme Court reversed a lower court's decision in *Thompson v. Engleking*[37] and held that the Idaho Constitution did not require equal educational opportunity for all students attending public elementary and secondary schools. Further, the court indicated that there was no evidence to support the contention that the quality of educational opportunity is dependent upon educational expenditures or that equal educational opportunity is dependent upon the amount and value of the taxable property within the school district in which the pupil resides. Consequently, it was the opinion of the court that the lower court has erred in its interpretation of the Idaho Constitution. The Supreme Court said:

> The record does not demonstrate a failure by the legislature to comply with its mandate to establish a system of basic, thorough, and uniform education; nor does that record demonstrate an inadequacy of funding to maintain that system of education . . .[38]

A case that gained national attention and illustrated a court's difficulty in dealing with a state's school finance system in the wake of *San Antonio v. Rodriquez*[39] was New Jersey's *Robinson v. Cahill.*[40] Although a final decision was not made until 1975, the case was first decided by the Superior Court of New Jersey in 1972. The facts presented by the plaintiffs showed that 67 percent of public school revenue came from the local tax base which resulted in considerable per pupil expenditure variation among school districts. In agreeing with the plaintiffs, the court found that the system discriminated against pupils in poor districts and also discriminated against taxpayers by imposing an unequal burden for public education. Therefore, in the opinion of the court, the system violated the requirement of equal protection under the law contained in both the New Jersey and the federal constitutions. Most importantly, the court ruled that the New Jersey Constitution was violated by the state's failure to provide a "thorough and efficient system of public education."[41]

Shortly after the lower court's decision in *Robinson v. Cahill*, the United States Supreme Court handed down the landmark decision of *San Antonio v. Rodriquez.*[42] The *San Antonio* decision was taken into consideration by the New Jersey Supreme Court when the *Robinson v. Cahill* decision was appealed. The New Jersey Supreme Court stated that the state constitution's equal protection clause may be more expansive than the Fourteenth Amendment of the federal Constitution; nevertheless, the court refused to hold the New Jersey system of financing in violation of the state's equal protection clause and preferred to support the lower court's ruling that the New Jersey school finance system did not meet the constitutional mandate for "thorough and efficient."

The New Jersey Supreme Court experienced much difficulty in providing the legislature with an operational definition of "thorough and efficient" or with appropriate guidelines for implementing a public school finance program that would meet the court's interpretation of this elusive concept. In the original decision, handed down on April 3, 1973, the New Jersey Supreme Court required the legislature to define and develop a school finance program that would satisfy the constitutional requirement of "thorough and efficient."

After various attempts to devise a system that was "thorough and efficient," the legislature had not provided sufficient state funds to meet the constitutional mandate as interpreted by the New Jersey court. On May 13, 1976, the New Jersey Supreme Court enjoined both local and state officials from expending any funds after July 1, 1976, for the support of the New Jersey public schools unless appropriate funding was accomplished by the legislature. On July 1, 1976, the schools officially closed for two weeks, giving the legislature the impetus to enact a state income tax which persuaded the court that the legislature intended to comply with the "thorough and efficient" mandate. The injunction was lifted.

Another case, decided shortly after the *Robinson v. Cahill*[43] decision, was *Olsen v. State of Oregon.*[44] On appeal to the Oregon Supreme Court, the plaintiffs alleged that the Oregon Public School Finance System violated the Oregon Constitution because it created unequal educational opportunities and variation in local control due to fiscal inequalities. Further, the plaintiffs alleged that the legislature had not complied with the constitutional mandate to establish a uniform and general system of common schools. Contrary to the *Robinson v. Cahill* decision, the Oregon Supreme Court ruled:

> We hold that the Oregon system of school financing does not violate the Oregon Constitution. Our decision should not be interpreted to mean that we are of the opinion that the Oregon system of school financing is politically or educationally desirable. Our only role is to pass upon its constitutionality.[45]

Also in 1976, in *Knowles v. State Board of Education,*[46] the Kansas public school finance system was challenged as unconstitutional based upon the equal protection provision of the state and federal constitutions. However, the case was rendered moot by the court since the legislature altered the method of financing public education after the case was argued.

The next decision after *Robinson v. Cahill*[47] in which a state supreme court ruled a state finance program unconstitutional occurred in *Horton v. Meskill.*[48] The Connecticut Supreme Court noted that there was a link between the financial resources and range of course offerings, number of teachers per special program, library resources and pupil/teacher ratios among Connecticut school districts.[49] In addition to the concern expressed by the court in regard to a lack of pupil equity (i.e., variance in financial and educational resources per pupil which are linked to a variance in taxable resources), the court noted that the present system failed to provide equity to the taxpayers. The court recognized the *San Antonio* rationale regarding education as a "fundamental right" but suggested that the Connecticut Constitution my provide a greater degree of individual protection.

> Decisions of the United States Supreme Court defining fundamental rights are persuasive authority to be afforded respectful consideration, but they are to be followed by Connecticut courts only when they provide no less individual protection than is guaranteed by Connecticut law.[50]

The court found that, according to the Connecticut Constitution, education is a fundamental right and, as such, deserves application of the "strict scrutiny" test.

> . . . we must conclude that in Connecticut the right to education is so basic and fundamental that any infringement of that right must be scrutinized . . . the state system of financing public elementary and secondary education as it presently exists and operates cannot pass the test of "strict scrutiny" as to its constitutionality.[51]

Although *Horton v. Meskill* was originally decided in 1977, it recently has been relitigated. In 1979, legislation was enacted and subsequently amended to achieve equity in educational financing in direct response to the 1977 decision. The constitutionality of the new plan was challenged again in 1984. The plaintiffs stated that both 1979 school finance legislation and subsequent school finance enactments were unconstitutional. The post-1979 enactments included phasing-in state funding at a lower level and slower rate than originally determined, substituting three-year-old data for two-year-old data for calculation purposes and permitting towns to delay full contributions under the minimum expenditure requirement. The trial court and supreme court found the 1979 plan constitutional, but disagreed on the post-1979 amendments. The lower court determined the enactments perpetuated expenditure disparities, but the supreme court remanded the amendments back to the lower court. The lower court was instructed to review the amendments in relation to a three-pronged test to determine constitutionality. The test provides:

> 1) . . . [T]he plaintiffs must make a *prima facie* showing that disparities in educational expenditures are more than *de minimum* in that the disparities continue to jeopardize the plaintiffs' fundamental right to education. 2) If they make that showing the burden then shifts to the state to justify these disparities as incident to the advancement of a legitimate state policy. 3) If the state's justification is acceptable, the state must further demonstrate that the continuing disparties are nevertheless not so great as to be unconstitutional.[52]

An opinion that generated considerable national attention was *Board of Education, Levittown v. Nyquist.*[53] The plaintiffs challenged the equal protection clause and the education article of the New York Constitution. In addition, the plaintiffs alleged that the system of financing public schools in New York violated the equal protection clause of the Fourteenth Amendment of the United States Constitution. The original plaintiffs were school children, school districts and counties representing less affluent areas of New York. Subsequently, an amended complaint was entered by plaintiffs-intervenors consisting of boards of education of Rochester, Buffalo, Syracuse, City of New York and others. After a lengthy review of the New York public school finance system, with extended emphasis placed on the problems of the large metropolitan areas (e.g., municipal overburden, pupil absenteeism, special education needs and discrepancies of fiscal disparity), the court declared the New York system of public school finance unconstitutional.

The court ruled that education was not a fundamental right, thus eliminating the need to subject the system to the strict scrutiny examination.[54] However, the so-called "sliding scale" test which lies between the standard of "strict scrutiny" and the less rigorous rational basis test was applied.[55] Since the defendants proffered that the correct equal protection analysis should be the rational basis, for evaluation, the court applied both standards.[56] Regarding the application of the rational test basis, the court said "The evidence amply supports the conclusion that the plenary operation of the state aid formula does not bear a rational solution to the objective for which it was devised."[57]

The court also ruled that the state was not in compliance with the requirements of the education article of the state constitution, "It is sufficient to state that on the evidence addressed, the manner in which the state has been shown to provide funds for the 'maintenance and support of a system of free common schools' fails to meet the obligations imposed by 1, Article X1 of the New York Constitution."[58]

In reversing the lower courts, New York's highest court, New York Court of Appeals,[59] held that: 1) the existing provisions for state aid to finance public education did not violate the equal protection clauses of the federal and state constitutions, and 2) the education article's requirement that the legislature provide for the maintenance and support of a system of free common schools was being met in New York. Average pupil expenditure in New York exceeded per pupil expenditures provided by all but two states; thus, the school financing scheme did not violate the state's education article.

The Washington Supreme Court once again addressed the issue of financing public elementary and secondary schools in *Seattle v. State.*[60] The court, partially reversing its earlier *Northshore*[61] decision, ruled that the state foundation program was unconstitutional as applied to Seattle. The court did not focus its attention on disparities among Washington school districts except as caused by the reliance of many school districts on "special excess funding" for discharging their duty to provide a basic education. By design, special excess funding was supposed to supplement basic educational programs for all children, but due to financial constraints partially caused by inflation the voter-approved special excess levies had become essential for many school districts. The court agreed with the lower court opinion that "state funding was insufficient to provide for any of the suggested definitions of basic education or a basic program of education."[62]

In a 1979 decision, *Pauley v. Kelly,*[63] the West Virginia Supreme Court reversed a lower court's dismissal of the plaintiff's contention that the state school finance system did not provide a "thorough and efficient" system of public education as mandated by the West Virginia Constitution. The court did not note specific areas of financial and educational disparities among the schools but based its ruling upon the "sorry conditions in Lincoln County Schools."[64] The court said "The mandatory requirements of a 'thorough and efficient' system of free schools. . .made education a fundamental, constitutional right in (West Virginia)."[65]

Since education was ruled a fundamental interest, the West Virginia court ruled that legislative enactments regarding financing public elementary and secondary schools should be strictly scrutinized to determine whether they were justified by a compelling state interest. The *Pauley* case was remanded to the lower court with specific instructions for retrial and the West Virginia school finance system was declared unconstitutional.

In 1982, Kanawha County Circuit Court, after extensive hearings, issued a lengthy opinion. On May 21, 1982, a supplemental opinion was issued and on September 1, 1982, the state board of education and the state superintendent of schools were directed to develop a master plan.[66]

In the 1979 *Danson v. Casey*[67] decision, the plaintiffs, the School District of Philadelphia and parents of Philadelphia public school children, filed suit claiming that Sections 14 and 32, Article III of the Pennsylvania Constitution were violated by the state public school finance system. The alleged violation was premised upon the assumption that Philadelphia had inadequate revenue to provide a "normal" program of education to its pupils. The plaintiffs requested that the state be enjoined from distributing state funds to any school district until Philadelphia received sufficient funds to provide a normal program of educational services.

The court concluded that no child was being denied an "adequate," "minimum" or "basic" program of education.[68] The court also cited the 1938 *Teachers' Tenure Act* cases[69] which stated that the words "thorough and efficient" should not be given narrow interpretation. The words "thorough and efficient" were intended to be positive models; narrow interpretation would restrict future legislative actions regarding educational policy. The court said:

> . . . everything directly related to maintenance of a "thorough and efficient system of public schools" must at all times be subject to future legislative control . . . Thus, the Commonwealth has not failed to fulfill any duty it may have to the School District of Philadelphia to provide state subsidies to help finance public school education.[70]

In *Lujan v. Colorado State Board of Education,*[71] the plaintiffs challenged the financing of Colorado public schools by claiming violations of the education clause of the state constitution. The plaintiffs also alleged that the due process and equal protection clauses of the state constitution and the equal protection clause of the Fourteenth Amendment of the United States Constitution were violated by the state system of financing public schools.

The lower state court determined that the education clause, Article IX, Section 2 of the state constitution (which provides for the "establishment and maintenance of a thorough and uniform system of free schools") constituted a fundamental right. In addition, the lower court ruled that poorer school districts had a disproportionate number of low-income pupils; therefore, a suspect classification was created. Using the rationale that education was a fundamental right and that a suspect classification could be identified, the court applied the "strict scrutiny" test. The court ruled that the Colorado public school finance system violated both the state constitution and the federal Constitution.

However, the Colorado Supreme Court[72] reversed the lower court ruling and held that Colorado's finance system did not violate Article IX, Section 2 of the Colorado Constitution, nor did it deny equal protection of the law to appellees. It further held that Colorado's method of financing capital outlay, including a limitation on a district's taxing authority, was constitutional and rationally related to a legitimate state purpose. The court determined that, unlike the federal Constitution, the state constitution is not one of limited powers; the Colorado Constitution merely mandated action by the General Assembly. Therefore, education is not a fundamental right in Colorado.

The Ohio system of public school finance was challenged as unconstitutional on the basis of violating the "thorough and efficient" and equal protection clauses of the Ohio Constitution in the 1979 case, *Board of Education v. Walter.*[73] The Court of Appeals of Hamilton County affirmed the lower court decision that the school finance system violated the equal protection provision of the state constitution, but reversed the ruling that the system violated the "thorough and efficient" provision.[74]

Upon appeal, the Ohio Supreme Court had to determine whether to apply the test of "strict scrutiny" or use the "rational basis" standard to the equal protection challenge. The court said, "The first step in applying the 'strict scrutiny test' is to determine if a fundamental interest is affected."[75] The court found: "because this cause deals with difficult questions of local and statewide taxation, fiscal planning and educational policy, we feel this is an inappropriate cause in which to invoke 'strict scrutiny.' "[76]

Subsequently, the court implemented the rational basis test and said, ". . . in adopting this standard, [the court] had held that every statute is presumed constitutional and can be declared invalid only when its unconstitutionality is shown beyond a reasonable doubt."[77]

After a lengthy review of the historical development of local control of the Ohio public schools, the court decided that a rational basis for supporting the present school finance system was the need to maintain traditional local control. The court justified the disparities in per pupil expenditures as a function of the need to retain local decision-making. The second issue reviewed by the court was whether the Ohio school finance system violated the Ohio constitutional provision of "thorough and efficient." The court found that no school district was totally starved for funds and that no school district lacked teachers, buildings or equipment. While the court recognized that legislative discretion is not absolute, wide discretionary powers for the legislature are necessary.[78] Specifically, the court indicated that it is not a function of the court to question the wisdom of the General Assembly.[79] Under the broad constitutional parameters of the Ohio Constitution, the legislature did not abuse its authority; consequently, the public school finance system was ruled as "thorough and efficient."

One of the more expansive state supreme court decisions regarding the constitutionality of a state school finance system was the Wyoming case of *Washakie County School District v. Herschler,*[80] rendered in 1980. The court indicated that the poor school districts showed a consistent pattern of less total revenue per student than rich districts based on assessed valuation per student.[81] The court accepted the plaintiffs' argument that the quality of educational services is related directly to the availability of financial resources. The court said, " . . . until equality of financing is achieved, there is no practicable method of achieving equality of quality."[82]

In Interpretations similar to those made by other state courts, the Wyoming Supreme Court indicated that certain provisions of the Wyoming Constitution may be more demanding than equivalent federal Constitutional provisions. In providing public elementary and secondary educational services, the Wyoming system of school financing was ruled unconstitutional because it failed to afford equal protection, thus violating the state constitution. The court ruled "that the matter of education involves a fundamental interest of great public importance."[83] In contrast to the *San Antonio v. Rodriquez* decision,[84] and several state decisions, the Wyoming court accepted the argument that the wealth of an individual school disrict is a suspect classification. As a consequence, the court said:

> . . . the state has the burden of demonstrating a compelling interest . . . which is served by the challenged legislation and which cannot be satisfied by any other convenient legal structure. The state has failed to make any showing that other methods are not available or possible.[85]

A lower court in Georgia found that the state public school finance system was unconstitutional under the equal protection clause of the Georgia Constitution in *Thomas v. Steward.*[86] Due to the technical design of the Georgia public school aid program, the court noted, ". . . the foundation program largely ignores the dramatic differences in taxable wealth among school districts by giving wealthy districts virtually the same amount of state funds per pupil as poorer districts."[87] As a consequence, the court ruled that the present state system ". . . amounts to unequal and arbitrary discrimination."[88] The court accepted the plaintiffs' contention that education is a fundamental right and the standard of "strict scrutiny" should be applied to determine constitutionality of the state school finance system. The court ruled that the state was unable to justify any necessary or substantially related compelling interest in the method used to finance public schools in Georgia.

However, the Supreme Court of Georgia[89] reversed the lower court's ruling that the Georgia system of financing public education violated the equal protection clause of the state constitution. The court held that Georgia's financing scheme bore a rational relationship to a legitimate state purpose, namely, to provide basic educational funding for the children of the state. The supreme court agreed with the lower court's finding that the Georgia Constitution did not restrict local school district officials from doing what they can to improve the quality of education. The Georgia Constitution, however, did not require the state to equalize educational opportunities between districts.

Another decision concerning fiscal equalization of a state public school finance system was rendered by a Maryland lower circuit court in the Spring of 1981. In *Somerset County Board of Education v. Hornbeck,*[90] the state public school finance system was challenged as unconstitutional under the education clause of the state constitution and a portion[91] of the Maryland Declaration of Rights. The education clause is quite similar to the language of other states which directs the General Assembly to; " . . . establish throughout the State a thorough and efficient System of Free Public Schools; and [to] provide by taxation, or otherwise, for their maintenance."[92]

After reviewing the funding formula used in the Maryland public school finance system in relation to the "thorough and efficient" provision, the court ruled:

> The evidence shows that the present financing scheme significantly underfunds the plaintiffs' schools whose requirements are at least as great as any in the State, while it permits virtually unlimited spending in other subdivisions. As a result, the quality of the schools in the plaintiffs' subdivisions is inferior to those in wealthier subdivisions with respect to buildings, equipment, materials, and staff. The existing system is not "thorough and efficient" . . .[93]

In regard to the equal protection challenge made by the plaintiffs, the court agreed with *San Antonio v. Rodriquez*[94] that "wealth of a school district" cannot be considered a suspect classification. However, the court did agree with the plaintiffs' contention that education should be considered a fundamental right and, as such, challenged legislation should be subjected to the standard of "strict scrutiny." Further, the court ruled:

> Article VIII requires the school system to be full and complete by contemporary standards throughout the State. Article 24 requires equality for each pupil in the State . . . The only practical and realistic way to determining and achieving equality is with respect to the division of the funds committed to education."[95]

The Maryland Court of Appeals, that state's highest court, overturned the lower court's decision and ruled the Maryland scheme for financing public education was constitutional. In *Hornbeck v. Somerset,*[96] the court held that equal expenditures were not required to fulfill that state's mandate for a thorough and efficient system of free public schools. Furthermore, the court found no violation of the federal equal protection clause or the equal protection guarantee of the Maryland Declaration of Rights.

In contrast to the Georgia, Colorado and New York cases, the Supreme Court of Arkansas, in *Dupree v. Alma School District,*[97] held the financing scheme of Arkansas to be unconstitutional and violative of Article XIV, Section 1 of the Arkansas Constitution. The Arkansas public school finance system relied extensively upon the local tax bases of the individual school districts. As a consequence, the court declared the Arkansas law denied equal protection and equal educational opportunities to students residing in property-poor districts, and declared that there was no rational relationship between the state's scheme and the needs of individual districts.

Recently, plaintiff school districts challenged Michigan's financing scheme as unconstitutional because it produced unequal per pupil funding among districts. The Michigan Court of Appeals, in *East Jackson Public Schools v. State,*[98] held that education is not a fundamental right in Michigan. The state did not have to provide equal per pupil funding among districts. The state scheme did not deny pupils equal protection of the laws.

Summary and Discussion

Since the *McInnis v. Shapiro* case, litigated in 1968, there has been a monumental amount of litigation concerning the financing of public elementary and secondary education. In 1973, the United States Supreme Court provided a definitive ruling in the case of *San Antonio v. Rodriquez* in answer to the charge that the Texas public school finance system failed to provide equal protection guaranteed by the Fourteenth Amendment to the United States Constitution. Since the *San Antonio* decision, the highest state courts in Connecticut,[99] New Jersey,[100] Washington (as it applied to Seattle),[101] California,[102] Wyoming,[103] Arkansas[104] and West Virginia[105] have ruled that the financing schemes of their respective states are unconstitutional. However, the methods used by the seven state supreme courts to arrive at the same conclusion have varied considerably. The states of California, Connecticut, West Virginia and Wyoming have ruled that education is a fundamental right under public education provisions of their state constitutions. The Connecticut, Wyoming and Arkansas school finance systems were found to violate their state constitutional guarantees of equal protection. The Washington court ruled that, while education is not a fundamental right, both the equal protection and public education clauses of the state constitution had been violated.

Of the cases which have been decided by the states' highest courts since the 1973 *San Antonio* decision, five states, Ohio,[106] Pennsylvania,[107] Georgia,[108] Colorado[109] and New York[110] have upheld the constitutionality of their state public school finance systems. The Ohio, Pennsylvania and Colorado courts did not accept the argument that education is a fundamental right; therefore, the less strenuous rational basis test was applied. The Ohio Supreme Court ruled that the objective of maintaining local control of public schools was a rational basis for explaining the disparities in per pupil expenditures. The Pennsylvania Supreme Court stated that the "thorough and efficient" clause was only a positive mandate that should be interpreted broadly to allow future legislatures to exercise discretion concerning educational policy. The Colorado Supreme Court declared that the state constitution merely mandated action by the General Assembly.

The Georgia Supreme Court found there was a rational relationship between the state public school finance program and the education of its children and that there was no violation of state protection guarantees. In New York, the court found the equal protection clauses of both the federal and state constitutions were not violated, nor was the state's education article of the state constitution.

Since the *San Antonio* decision, a number of high state courts, when faced with a challenge to the states' public school finance systems, have found for the defendants. An exception is the recent *Dupree v. Alma School Dist. No. 30,*[111] in which the Arkansas Supreme Court struck down that state's public school finance system on the grounds that it violated the equal protection clause and denied students equal educational opportunity guaranteed by the state constitution.

The current trend seems to favor a more conservative era, one in which the courts are upholding state financing schemes. Nevertheless, litigation will likely continue.

NOTES

1. 293 F. Supp. 327 (Ill. 1968).
2. 487 P.2d 1241 (Cal. 1971), 557 P.2d 929 (Cal. 1976).
3. *San Antonio Indep. School Dist. No. I v. Rodriquez*, 411 U.S. 1 (1973).
4. *McInnis*, 293 F. Supp. 527.
5. K. Alexander, *Judicial Standard of Equality: A Definitional Problem;* Critical Issues in Educational Finance, Harrisonburg, Va.: Virginia Institute for Educational Finance, 1975, 19-20.
6. *San Antonio*, 4-11 V.S. 1.
7. 310 F. Supp. 572 (Va. 1969), *aff'd per curiam*, 397 U.S. 44 (1970).
8. *Id.* 310 F. Supp. at 574.
9. 334 F. Supp. 870 (Minn. 1971).
10. *Id.* at 873.
11. *Id.* at 877.

12. 337 F. Supp. 280 (W.D. Tex. 1971).
13. 415 F. Supp. 272 (La. 1976).
14. *Hargrave v. Kirk*, 313 F. Supp. 944 (Fla. 1970), vacated, 401 U.S. 479 (1971).
15. *McInnis v. Shapiro*, 293 F. Supp. 327, 328-330 (N.D. Ill. 1968).
16. *Id.* at 330-331.
17. *Id.* at 332-333.
18. *Burruss*, 310 F. Supp., 574.
19. Alexander, Note 5, page 25. *See also, Rodriquez v. San Antonio*, 25-27.
20. *Thomas v. Steward*, No. 8275 (Polk County, Ga., Super. Ct. 1981).
21. *Northshore School Dist. No. 417 v. Kinnear*, 84 Wash. 2d. 685, 530 P.2d 178 (Wash. 1974).
22. *Robinson v. Cahill*, 303 A.2d 273, 274 (N.J. 1976).
23. *Serrano*, 487 P.2d 1241.
24. *Id.* at 1244.
25. *Serrano*, 557 P.2d 929.
26. *Id.* at 936.
27. 203 N.W.2d 457 (Mich. 1972), vacated, 212 N.W.2d 711 (Mich. 1973).
28. *Id.* at 716.
29. *San Antonio*, 411 U.S. 1.
30. 110 Ariz. 88, 515 P.2d 590 (Ariz. 1973).
31. 55 Ill. 2d 94, 302 N.E.2d 46 (Ill. 1973).
32. 530 P.2d 178 (Wash. 1974).
33. *Id.* at 184.
34. *Id.* at 191.
35. *Id.* at 198.
36. *Id.* at 202.
37. 537 P.2d 635 (Idaho 1975).
38. *Id.* at 653.
39. *San Antonio*, 411 U.S. 1.
40. *Robinson*, 303 A.2d 273.
41. *Id.* at 282.
42. *San Antonio*, 411 U.S. 1.
43. *Robinson*, 303 A.2d 273.
44. 554 P.2d 139 (Or. 1976).
45. *Id.* at 149.
46. 547 P.2d 609 (Kan. 1976).
47. *Robinson*, 303, A.2d 273.
48. 376 A.2d 359 (Conn. 1977).
49. *Id.* at 368.
50. *Id.* at 371.
51. *Id.* at 373-374.
52. *Horton v. Meskill*, 195 Conn. 24 (January 1985).
53. 408 N.Y.S.2d 606 (N.Y. 1978). On October 26, 1981 a New York State appeals court upheld the lower court's decision.
54. *Id.* at 636.
55. *Id.* at 638.

56. *Id.* at 638.

57. *Id.* at 639.

58. *Id.* at 640.

59. 453 N.Y.S.2d 643 (Court of Appeals, 1982).

60. *Seattle School Dist. No. 1 of King County v. State*, 585 P.2d 71 (Wash. 1978).

61. *Northshore*, 530 P.2d 178.

62. *Seattle School District*, 585 P.2d at 116.

63. 255 S.E.2d. 859 (West Va. 1979).

64. *Id.* at 884.

65. *Id.* at 861.

66. *A Master Plan for Public Education.* West Virginia Board of Education, Roy Truby, State Superintendent of Schools, James P. Clark, Board President, Charleston, West Virginia, 1982.

67. 399 A.2d 360 (Pa. 1979).

68. *Id.* at 365.

69. *Id.* at 366.

70. *Id.* at 365-367.

71. No. C - 73688 (Colo. 1979).

72. *Lujan v. Colorado State Bd. of Educ.*, 649 P.2d 1005 (1982).

73. *Board of Educ. of City School Dist. of Cincinnati v. Walter*, 390 N.E.2d. 813, (Ohio 1979).

74. *Id.* at 815.

75. *Id.* at 818.

76. *Id.* at 819.

77. *Id.* at 819.

78. *Id.* at 824.

79. *Id.* at 824.

80. 606 P.2d 310 (Wyo. 1980).

81. *Id.* at 329-330.

82. *Id.* at 334.

83. *Id.* at 318.

84. *San Antonio*, 411 U.S.1.

85. *Washakie*, 606 P.2d, at 335.

86. CA 8275 (Polk County, Ga., 1981).

87. *Id.* at 17.

88. *Id.* at 22.

89. *McDaniel v. Thomas*, 285 S.E.2d 156 (Georgia 1981).

90. A - 58438 (Baltimore City, Md. 1981).

91. This portion has been interpreted by the courts as "equal protection."

92. Article VIII, Section 1, Maryland Constitution, *Somerset* 14.

93. *Id.* at 22.

94. *San Antonio*, 411 U.S.1.

95. *Somerset*, A-58438, at 36-37.

96. 458 A.2d 758 (Md. 1983).

97. 651 S.W.2d 90 (Ark. 1983).

98. 348 N.W.2d 303 (Mich. Court of Appeals, 1984).

99. *Horton*, 376 A.2d 359.

100. *Robinson*, 303 A.2d 273.
101. *Seattle School Dist.*, 585 P.2d 71.
102. *Serrano*, 557 P.2d 929.
103. *Washakie*, 606 P.2d 310.
104. *Dupree*, 651 S.W.2d 90.
105. *Pauley*, 255 S.E.2d 859.
106. *Board of Education*, 390 N.E.2d 813.
107. *Danson*, 399 A.2d 360.
108. *McDaniel*, 285 S.E.2d 156.
109. *Lujan*, NO C-73688.
110. *Levittown*, 408 N.Y.S.2d 606.
111. *Dupree*, 651. S.W.2d 90.

20

Reduction in Force

R. Craig Wood

The Need For Planning

School business administrators will face problems due to declining enrollments throughout the next decade. The problems will be compounded by increasing reluctance of the public to continue funding education at current levels. Despite a decline in the number of students, the aggregate costs for education have not declined. While the aspiring school business administrator will find that much has been written on costs and the economics of scale related to the growth of public education, much less is available that describes planning activities for fiscal retrenchment.

The role functions of the school business administrator may be illustrated by Figure 20:1:

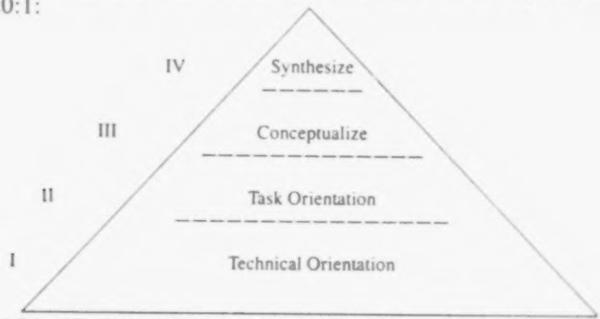


Figure 20:1 School Business Administrator Role Functions

Figure 20:1 outlines the necessary skills for the practitioner facing a complex and continuing problem such as declining enrollment. In dealing with declining enrollment, the school business administrator must have a strong academic knowledge of public school law and finance. With this technical basis and knowledge, the school business administrator is able to progress to level two in developing the task-oriented skills to solve the problems of declining enrollment for a local school district. While identifying and clarifying the task the school business administrator is also conceptualizing various alternatives. The last step, that of synthesis, is the most difficult. The synthesis level involves blending technical knowledge, bringing that knowledge to the task and conceptualizing the fiscal and legal options that lead to a solution of the problems. The synthesis stage brings these components together as practical solutions for a board of education and superintendent to consider.

The role of the school business administrator is that of a technician, resource person and decision maker. For example, as a technician the school business administrator has calculated the effects of declining enrollment on state aid and the potential compensating options such as increasing local property taxes. As a resource person, the school business administrator may serve as a guide to the superintendent and board in developing procedures for reducing staff. As an analyst, the school business administrator presents alternatives and recommendations for the superintendent and the board to consider.

The school business administrator exerts tremendous influence on the decision-making process by deciding what plans are presented as well as recommending policy for consideration. Decision-making responsibility is exercised also when deciding what not to recommend to the school board. While there is no doubt that the board of education has the final decision-making authority, the impact of those who identify options and make recommendations as a part of the decision-making process is significant.

Financial Exigencies[1]

Financial exigencies are an ever-increasing reality for many public school districts. As the cost of education has risen dramatically, so has the decline of pupils, forcing the necessity of the dismissal of teaching staff. With little, if any, flexibility and fewer students, school districts have been forced to engage in reduction-in-force (RIF). RIF whether it is referred to as layoff, leave, furlough, non-renewal or termination, is the suspension of teachers in a manner unrelated to performance. Within guidelines, school boards possess authority over the hiring and firing of employees. The school board is a governmental agency clothed in authority delegated by the state legislature. Education is considered to be a state function as reflected in the Tenth Amendment of the United States Constitution. The various state legislatures have generally delegated much of the governance of schools to local school boards, and in this manner, provided for education by discharging a state function.

It is important to note that what a state legislature may create it may also destroy. A school board functions within the prescribed legislative and judicial limits of its authority. The degree of flexibility which school boards may exercise is dependent on the role that each state legislature has delegated to the local education agencies under its jurisdiction. School boards possess no inherent powers and thus must operate within state legislated parameters. Accordingly, school districts often find themselves in the difficult position of discharging a state-determined function while they seek to provide quality educational programs under severe budgetary constraints.

An additional factor affecting a district's ability to achieve its goals and meet obligations is the presence and relative strength of the unions representing classroom teachers. Many of the concerns of the teachers' associations are in conflict with those of the school board. Critics argue that teachers' associations historically have been concerned with protecting as many positions as possible, while at the same time maximizing the economic reward for all those protected. Never is this dichotomy more evident than in situations of declining enrollments when the union seeks two mutually exclusive objectives such as step and pay raises for everyone and job security for all who are covered by the contract. From a management point of view, such a position is difficult to comprehend when faced with the reality of budgetary constraints and priorities.

The financial exigencies within a school district are generally not a major concern of the teachers' association. The observer of collective bargaining in the public sector should note that at the time of financial insolvency, the teachers' union should be vitally concerned. In the past, concern for financial ability of school districts in the long run was outweighed by a preoccupation with short-term objec- face of enrollment declines, teachers' associations have typically recommended raising taxes, short-term borrowing, cutting certain non-teaching areas, e.g., maintenance and custodial services, before reducing the numbers covered by the contract. Only recently have the various unions begun to examine such issues within the context of long-range planning models.

Job Security

The strongest means by which a teachers' association may insure security in the face of financial exigencies is through a collective bargaining agreement that contains a job security clause. A job security clause may be worded in such a manner as to severely restrict, if not eliminate, the board of education's decision-making options in this area. Job security clauses may present acute problems for a school district facing declining enrollments. The problems may be further compounded as states generally do not permit deficit spending by school districts.

Two court cases from the public sector in New York serve to typify judicial logic regarding job security clauses. In *Burke v. Bowen*[2] the New York State Court of Appeals examined a job security clause that stated:

> All tours shall consist of a minimum of six (6) Fire Fighters. . . . It is agreed by and between the parties that the best interest of public safety as regards full protection with the minimum complement of thirty-four (34) active Fire Fighters, shall be acceptable for the term of this agreement . . . . Notwithstanding any provision herein, it is agreed that upon a re-evaluation as to minimum complement, that in no event shall the presently agreed upon minimum be readjusted downward. The specific intent of this provision is to issue public safety standards as well as minimum job protection for the Fire Fighters.[3]

The court ruled that job security clauses, although not mandatory, were permissible if granted over a limited period of time. Nevertheless, the court stated that since the city faced extreme financial pressure, it did not have to reinstate the workers. The court did state, however, that the workers might have cause to litigate damages due to breach of contract. An examination of *Burke* reveals the obvious ramifications and legal issues involved in the litigation of RIF policies.

In a similar case from New York, *Board of Education v. Yonkers Federation of Teachers* the contract clause in question read:

> During the life of this contract no person in this bargaining unit shall be terminated due to budgetary reasons or abolition of programs but only for unsatisfactory job performance as provided for under the Tenure law.[4]

In examining the issue, the New York Court of Appeals considered the following factors:

> (The clauses) were of relatively brief duration. . . . Nor were they clauses negotiated in a time of financial emergency between parties of one equal bargaining power. Most important, the job security clause in this instance is explicit in its protection of the teachers from abolition of their positions due to budgetary exigencies. . . . (Citations omitted).[5]

Although the court acknowledged that not all job security clauses were valid or enforceable depending upon the circumstances, the court stated:

> A job security provision ensures that, at least for the duration of the agreement, the employee need not fear being put out of a job. Such absence of fear may be critical to the maintenance and efficiency of public employment, just as the fear of inability to meet its debts may destroy the credit of the muncipality. A job security clause is useless if the public employer is free to disregard it when it is needed.[6]

In *Burke* and *Yonkers* the courts ruled that, depending on the circumstances, a board of education may have to honor the collective bargaining agreement in terms of job security. Although a state may outline by law the RIF procedure, the teachers' association may still be allowed to bargain the definition of seniority by way of defining and expanding the seniority rights of teachers.[7] In the state of Washington, a court has ruled that RIF is not a mandatory item for discussion at the bargaining table, as a contract settlement was not a prerequisite for dismissal of employees based on budgetary consideration.[8]

Generally, job security is still a permissible subject in the bargaining process. Under certain factual situations, school districts in some states may be unable to renege on a contract based on the *Burke* and *Yonkers* decisions. Obviously, school districts outside New York are not bound by such decisions, although they may face similar interpretations.

Job security is generally near to the heart of most teacher associations. If job security for all cannot be achieved, the union normally aspires to a straight "last hired—first fired" clause, hence preserving jobs for those with greatest seniority. It is common practice in many communities for the teachers' association to oppose RIF action by engaging in some combination of the following activities:

- Monitoring of all public meetings in order to search for any evidence of preconceived ideas by the board of education.

- Monitoring of all budgetary documents which might reflect a board of education's unwillingness to seek additional funding through application, grants, title moneys, tax refunds etc.

- Presenting and publicizing various alternatives concerning the dismissal of teachers.

- Publicizing RIF as a ploy to close more neighborhood schools.

- Gathering all the financial data relevant to administrative positions for purpose of comparative analysis.

- Monitoring the collective bargaining contract for possible interpretive or factual violations.[9]

Most states have clearly delegated the authority for teacher termination to local boards of education. Although there are many causes which may result in RIFs, the majority fall in three areas: financial, enrollment and programmatic reasons. Generally, most state tenure laws are not intended to guarantee continuous lifetime employment.[10]

Financial Insolvency

Court cases involving RIF, based on financial insolvency by school districts generally center on attempts to determine if such a situation does, in fact, exist. Generally, the focus of such cases is not on the board's authority, but rather the financial facts from which the board reached its conclusions.[11] The courts in most of these cases, find in favor of the teachers' associations. Challenges to RIFs based on breach of contract may be successful under certain factual and statutory conditions, regardless of data supportive to a RIF action.[12] In the event that an unanticipated action such as a court order, prevents contract fulfillment, RIF might be successful without a successful breach of contract suit.[13]

It is important to recognize that each state may have a different interpretation of what constitutes a financially insolvent or potentially insolvent situation. For example, the term "insufficient funds" is used in the Missouri statute. In *Frimel v. Humphrey*[14] the court ruled that RIF was permissible in view of the "erosion of expected sources of revenue."[15] In California the statute permits RIF on the basis of "lack of funds." However, the court did not equate bankruptcy with a "lack of funds" as the district in question had a cash reserve.[16]

When financial exigency is claimed by the school board, the board must be able to refute any bad faith allegations by being prepared to substantiate the actions with empirical data. Several cases typify different factual situations and, hence, different outcomes. In *Unified School District v. Epperson*,[17] two teachers were dismissed due to alleged "budgetary cuts, necessitated by a decrease in state aid."[18] On appeal, the court determined that the teachers' due process had been violated. Testimony indicated that their selection for termination might have been associated with their union activity. In a Washington state case, a dismissed teacher successfully challenged the dismissal in court as the board failed to show sufficient documentation to eliminate the position.[19]

On the other hand, the courts have reached different conclusions in those cases where the financial conditions were indeed bona fide and warranted major budgetary adjustments. In Connecticut, the court upheld a teacher termination when the Board of Selectmen failed to pass the budget of the board of education.[20] In Pennsylvania, a charge brought by a dismissed teacher alleging the board had insufficient evidence to warrant RIF was rejected by the Pennsylvania Commonwealth Court.[21]

These cases serve to underscore the need for administrators to be prepared with empirical evidence of a clear, concise, factual and financial nature that supports the board of education's position in the event of adjudication. The preponderance of court decisions reflects that boards which act in good faith, and whose decisions are based on substantial empirical evidence, experienced minimal judicial interference.

Enrollment Declines

RIF, based on declines in enrollment, share similarities with those carried out because of financial exigencies. An important distinction, however, is that a given district may have an increase in overall enrollment but experience a decline within a given academic area or program. For example, an enrollment decline may result from a junior high to middle school reorganization or a shift from an open space to a traditional style of instruction. Again, judicial examination seems to center on the factual circumstances and the quality of empirical evidence presented. In *Phillippi v. School District*[22] the court considered a decline of 661 students over six years as "substantial" under Pennsylvania law.

A case from 1929 illustrates a specific declining academic area juxtaposed with an overall pupil increase. In that case, a teacher of a millinery class was laid off when changing women's fashion resulted in a reduced demand for the class.[23] The court agreed that the layoff due to specific enrollment decline was proper.

In a similar case, a Pennsylvania court supported a board of education's decision to abolish the kindergarten program and its attendant jobs. At the time, kindergarten was not required under state statute. The court said:

> Many new fields of experimentation have been launched by our school authorities. Some have been found unsuccessful in accomplishing their purpose, and if an employee's position is upheld, no school board would risk the establishment of any new department, which in the event of failure must be continued or its idle teachers paid.[24]

However, at least one state court has ruled that simply because the position was abolished, the employee had certain rights. In *Dugas v. Ascension Parish School Board*[25] the court stated that the board had to place the teacher in a position of equal standing and, if possible, pay the teacher's salary.

Authority of the Board of Education

The authority of a board of education to engage in RIF generally rests in the implied powers given to boards of education by the state legislature. As discussed previously, boards of education are creations of the state legislature which, generally, have been granted broad and sweeping powers varying from state to state. These powers derive from specific legislative enactments or interpretations thereof, and in forty-nine states,[26] by rules and regulations promulgated by the state board of education.[27]

Understandably, a local board of education must have reasonable flexibility in dealing with declining enrollments, as well as a myriad of other problems. In doing so the board may not, however, violate any state procedures, regulations, statutes, federal laws, or function in a manner which is in conflict with the state's interest.[28] In most states, the local board of education's authority to engage in a RIF is sanctioned by state statute.[29] In *Weisman v. Board*[30] the Colorado Supreme Court spoke to the issue of school board authority as follows:

> The power of the board of education to dismiss and discipline teachers is not merely punitive in nature and is not intended to permit the exercise of personal moral judgments by board members; rather it exists and finds its justifi-

> cation in the state's legitimate interest in protecting the school community from harm and its exercise can only be justified upon showing that such harm has occurred or is likely to occur.[31]

School boards may, in some instances, engage in RIF in the absence of clearly defined statutory procedures and reasons. Two Iowa cases illustrate judicial interpretation of certain statutory phrases. In *Hartman*[32] the Iowa court ruled that "any good cause" did not include RIF layoffs due to declining enrollments, but rather only to personal faults of teachers. Later in *Briggs v. Board of Directors*,[33] the court upheld RIF deeming financial considerations to constitute "just cause." In a case taken from higher education, *Johnson v. Board of Regents*,[34] the federal district court upheld the termination of tenured faculty members under the statutory language of "just cause." The court stated that this was permissible as long as the Fourteenth Amendment and other individual rights were not violated. The courts elaborated by saying that if the termination were not due to impermissible reasons (such as race), and was not arbitrary, capricious or unreasonable, it was legally defensible.[35]

School districts in the throes of declining enrollment generally wish to explore alternatives to RIF. If a steady pupil decline is inevitable, however, temporary solutions will not solve the problems of declining enrollment. Alternatives described in popular educational literature include:

Adult Education. The public school district broadens its appeal and programs to reach a larger clientele and creates new jobs in the process . Dependent on several conditions, this option, however, may not address long-range problems. Opponents of this concept question the savings which accrue to the taxpayer and whether all various kinds of teachers are suited to teach adult education courses. It should not be suggested these plans are doomed, but merely that certain logistical and practical problems must be resolved before implementation.

Annual Pay Raises. Proponents suggest either doing away with, or severely curtailing, step raises. Depending on the bargaining climate, this may not be as practical as some would suggest. Case law clearly suggests that step raises pertaining to previously signed contracts must be honored. Whether step raises should or must be calculated in upcoming contracts is a lengthy subject outside the confines of this chapter. Arbitration panels have ruled in different manners in various states on this question.

Attrition. The normal rate of leaves, resignations and retirements should be accounted for and used whenever possible. This practice is common among school districts throughout the nation.

Busing. Much has been written about busing of pupils for a variety of reasons. Although not common, some districts have irregular pupil population trends, e.g., enrollments are increasing in some schools and declining in others. In areas where this occurs, and if legally and logistically possible, certain exchanges of students and teachers should be explored.

Closing Facilities. One of the largest financial savings can be realized by reducing the number of facilities in use. This option is explored in another chapter.

Early Retirement. In states where it is legally permissible for boards to participate in such plans, and under certain circumstances, some plans may produce limited savings. Generally, early retirement programs do not lead to the kind of cost savings claimed by the popular press and the teachers' unions.[36]

Helping Teachers Find New Jobs. This plan is used by many large urban school districts. When unemployment compensation benefits are accounted for, these plans may become cost effective.

Increasing Class Size/Increasing Work Loads. Many articles in the popular literature suggest that, if the class sizes/work loads are increased, many financial problems will be resolved. While research is unclear as to the optimum size of classes for learning, legal, political and practical (facility) limitations restrict the extent sizes may be increased. It is not effective to increase class size if such a move results in disciplinary problems and increased vandalism.

Job Sharing. Two teachers filling one position on a prorated basis of salary and benefits is growing in popularity in some communities. There is, however, little research that examines how pupils learn under these arrangements.

Leaves. Some school districts in the last several years have developed open and liberal non-paid leave policies. The rationale for such policies is that it encourages teachers to seek alternate work for one or more years. Some districts report that the majority of teachers who select leaves find economic reward elsewhere and do not return. The practice consequently encourages attrition. As the need arises, some districts hire less experienced and, therefore, less costly teachers on a temporary contract. With careful design, the retiring teacher by virtue of his or her absence, has not progressed as quickly on the salary matrix because the step increases have not been awarded.

Multi-Age Classroom. Through this technique, smaller classes are combined using modified instructional techniques.

Pre-Primary. As with the discussion of adult education, the school district expands its clientele and reassigns its teaching personnel. With more pre-school children coming from homes where both parents work, the need for such programs in many communities will continue to grow. From an educational point of view, there is clear evidence that such programs are beneficial and cost effective. Such plans may not, however, solve the basic financial problems of the school district.

Reducing the Number of Part-Time Personnel. Many school districts reduce part-time positions before full-time positions. Although this seems to be wise, it should never be assumed that part-time employees are without legal and contractual guarantees. The fact that part-time employees may not have been mentioned in the collective bargaining agreement does not mean necessarily they are not covered by such agreements in many states.

Short-Term Contracts. While in many districts short-term contracts are used wisely, they may be viewed as a violation of the procedural safeguards and the intent of many state teacher tenure acts. Those districts that have attempted such across-the-board action generally have not experienced a great deal of success.

Once RIF has been determined to be a necessity, the school board must deal with the many questions regarding the actual positions to be eliminated. Great care must be taken that the board does not act in an arbitrary, capricious or unreasonable manner in making its decisions. Illustration of this principle is found in *Collins v. Wolson*[17] in which the court stated that the school board may:

> Employ any device or standard to implement the reduction, such as arbitrarily drawing lots or otherwise leaving the decision to chance, so long as the actual reason for the particular separation was not retribution against the instructor's constitutionally protected conduct.[18]

Minnesota courts in three cases[39] have allowed administrators and school boards to have flexibility in deciding what positions to eliminate. The school officials may decide what positions to eliminate within categories as well as determine the nature of any new positions under alternative arrangements.

Order of Dismissal

Decisions concerning which employees to dismiss will depend on statutory guidelines, collective bargaining agreements and state court decisions. Minnesota, New York and California,[40] for example, require by statute that the non-tenured teacher be laid off first if the tenured teacher is certified and qualified to take over the non-tenured teacher's position. Unless state statute requires a given procedure or an applicable court case sets forth case precedent, it is to the board's advantage not to base RIF on a standard "last hired-first fired" procedure. A court in Nebraska[41] has upheld the right of a school board to use extra-curricular activities as a basis for dismissing teachers when all other factual circumstances are similar. In Indiana the courts[42] have clearly ruled that a tenured teacher may not be dismissed over a non-tenured teacher if both are certified for the same position.

Consolidation/Desegregation

RIF often occurs when school districts are consolidated. Consolidation of school districts normally results in the elimination of superfluous positions. In *Hensley v. State Board of Education*[43] the Supreme Court of New Mexico, examining the question of whether a teacher loses seniority by virtue of the district's merging with another district, the court said that a teacher loses no rights when two districts merge to create a new district since the consolidated district is legally a continuation of the previously non-consolidated district. On the other hand, in *Beckett v. Roderick*,[44] the Maine Supreme Court ruled that a newly consolidated district was not obligated to hire several recently dismissed teachers. A crucial basis for the court's decision was that the enabling legislation for consolidation made no mention of personnel transfers. The court saw no inherent obligation on the part of the local school board to hire the previously dismissed teachers. It was, therefore, a matter to be left to the local school board's judgment.

When students are transferred across district lines for court-ordered desegregation purposes, one district may be instigating RIF procedures while another district may be hiring additional teachers. The impact of such court orders is unclear as to the obligation of the receiving district. In the absence of a definitive ruling by an appropriate court, districts generally are not bound by legal obligation to hire the neighboring school district's teachers.

Historically, during desegregation a great deal of consolidation has occurred by the merging of racially identifiable schools and school districts. In some instances, there has been evidence to suggest that minority administrators and teachers were dismissed as a result of consolidation. When RIFs involve minority dismissals, the courts have generally looked to the "standard" found in *Singleton v. Jackson*.[45]

Singleton stated that any dismissal or demotion of an employee must be on the basis of:

> . . . objective and reasonable non-discriminatory standards from all the staff of the school district. . . . Prior to such reduction the school board will develop . . . nominal objective criteria . . . in dismissal or demotion. . . . Demotion as used above includes a re-assignment 1) under which the staff member receives less pay or has less responsibility than under the assignment he held previously, 2) which requires a lesser degree of skill than did the assignment he held previously, 3) under which the staff member is asked to teach a subject or grade other than one for which he is certified or for which he has had substantial experience within a reasonably current period.[46]

Since the *Singleton* "standard" was first set forth, the interpretation of its applicability has been narrowed considerably. In the 1975, case of *Pickens v. Okolona*[47] the court found the *Singleton* "standard" not "relevant" to the overall reduction of the number of teachers.[48] In *Lee v. Chambers*,[49] the Fifth Circuit Court of Appeals ruled that *Singleton* was not applicable since the RIF was due to a loss of Title I funds and not desegregation. In *Lee* the court was more concerned with the rationale rather than the impact, in a clear departure from *Singleton*. In *Harkless v. Sweeny Independent District*,[50] the *Singleton* "standard" was not applied as the evidence reflected that desegregation activities were not the result of a court order and had been implemented before *Singleton*. In *Barnes v. Jones County School District*,[51] the Fifth Circuit Court remanded the case to the federal district court to examine if the dismissal of teachers was racially motivated. However, in *Barnes* the Fifth Circuit Court stated that *Singleton* was not applicable because, although the number of black teachers had been reduced, there was no overall RIF. The Fifth Circuit Court interpreting *Singleton* in *Wright v. Houston Independent School District*[52] stated that it must be clearly shown that desegregation was the primary cause of the RIF. In *Peques v. Morehead Parish School Board*,[53] the Fifth Circuit Court ruled that a "mere lapse of time" is a sufficient rationale for dismissing a claim under the *Singleton* "standard." Although *Singleton* has been narrowly interpreted by the courts, its basic thrust remains valid. Inasmuch as racial discrimination creates a "suspect class," greater judicial scrutiny will be present in adjudicated matters involving RIF and its impact on minority employees. Once again, the necessity of having empirical data as reflected in objective teacher evaluations and sound school board policies is illustrated.

Bumping

As a general rule, state courts have upheld the policy of dismissing non-tenured teachers before tenured teachers in a RIF when all the factual circumstances are the same.[54] When a tenured teacher is released and he or she is certified in other areas currently held by a non-tenured teacher, the tenured teacher must be restored and the non-tenured teacher released. Note that this discussion assumes all things are generally equal with the absence of a statute or contract reflecting anything different and where the factual circumstances are without challenge.[55] In *Swisher v. Darden*,[56] the New Mexico Supreme Court ruled that the school board had to prove in its dismissal procedure that there were no other vacancies which the dismissed teacher was legally qualified to teach. This standard was narrowed in *Fort Summer* *v. Parsons*[57] and *Penasco v. Lucew*[58] in which the New Mexico courts stated that *Swisher* was valid but only if the curriculum were not adversely affected by the procedure in question.

In summary, the vast majority of courts have upheld the concept of the tenured teacher "bumping" the non-tenured teacher. These decisions reflect the logic and intent of the various state tenure laws. On the other hand, there are a significant number of exceptions which either do not hold to this view or severely restrict such an interpretation. State court decisions in Connecticut,[59] Pennsylvania[60] and Maine[61] may restrict across-the-board bumping even within certified categories.

When tenured teachers are dismissed, boards must often determine the position to be eliminated. Two cases serve to illustrate widely different views. In *Williams v. Board of Education of Lamar*,[62] the Alabama Supreme Court stated that a board of education may dismiss any tenured teacher and that seniority is not a criteria for RIF of tenured teachers. The Pennsylvania Supreme Court, on the other hand, in *Welsko v. Foster Township School District*[63] stated that seniority must be a criteria for selection of those being dismissed. Courts in New York,[64] California[65] and Illinois[66] have also reached varying conclusions.

Often questions are raised about seniority rights of non-tenured teachers. One view holds that all employees acquire seniority regardless of tenure. The opposing view embraces the concept that non-tenured teachers have, by virtue of their status, little, if any, rights or privileges that normally accrue to tenured teachers. The seniority question is one of determining if considerations extend to and among non-tenured teachers. A New York court[67] has ruled that non-tenured teachers have seniority rights among non-tenured teachers. The opposite view was accepted by the Washington Supreme Court[68] where the court ruled that seniority rights do not, necessarily, extend to non-tenured teachers.

Full-Time to Part-Time

Often boards of education, due to financial conditions, wish to reduce certain positions to part-time positions. Some states require a set procedure for reducing full-time into part-time positions. In an Illinois case, *Caviness v. Board of Education*[69] the court ruled that the state statute concerning RIF was applicable where an employee was being reduced to a part-time position from a full-time position. Although relatively few statutes and court cases[70] offer specific guidance in this area, boards have found that great care should be exercised in this aspect of RIF.

Qualified versus Certified

Boards of education are often placed in an awkward position regarding conflicts in the status of "qualified" and "certified" personnel. Without a negotiated agreement or statute the terms are often interchanged to represent the same concept. Generally, certified is defined as "legally qualified." However, the Illinois Supreme Court[71] has ruled that "legally qualified" means more than the term "certified." If a school board can make an argument that "qualified" reflects years of successful experience in teaching within a given area, or possessing certain teaching skills unique to the assignment and so on, then the board may have greater flexibility.[72]

Absence of Policy

The failure of a board of education to have a RIF policy or agreement, in the absence of a state statute, is not entirely negative. Constitutionally protected freedoms only protect individuals from Constitutional infringements. They do not themselves require a policy to be in place before dismissal. Obviously, however, a board of education must comply with all applicable state statutes. It also should be noted that in the absence of a written policy, a court may interpret a course of conduct to constitute a policy which, in turn, affect the working conditions of all employees[73] under certain state statutes.

Conclusions

A review of the litigation surrounding RIF claims is revealing. First, the widely accepted practice of "last hired-first fired" as practiced by countless school districts need not be a legal necessity. Second, in the absence of any infringement on the constitutionaly protected rights of citizens, the federal courts have been reluctant to interfere with the discharge of teachers by the local school board.[74]

Third, the courts are heavily persuaded by empirical data supporting demographic and financial claims by boards of education. With this empirical data, challenges based on constitutional infringements are weakened considerably in the course of litigation.

As generalization, where boards of education have operated within the state procedures and followed due process guidelines, the state courts have not substituted their judgment for that of the local school board. The evidence clearly indicates that although RIF is a difficult task and subject to litigation, local school boards in the face of financial exigencies may reduce their teaching staff through a variety of methods.

The school business administrator should keep the following in mind when assisting a local board of education with RIF planning:

- Appropriate state statute(s) should be followed in all procedures.
- Adequate legal counsel familiar with public school law should be secured at an early point.
- All financial and demographic projections for RIF decisions would be as accurate as possible to withstand any potential challenge.
- Great care should be exercised not to violate any constitutionally protected rights or affirmative action guidelines throughout the decision-making process.
- The school business administrator must stay abreast of all recent developments concerning RIFs to protect the board of education.

There are several excellent RIF models that a school business administrator may wish to consider. Policies will vary in each state dependent on the appropriate statutes and court cases. Thus, the policies contained within this chapter should never be adopted without careful analysis by school business administrator and legal counsel. Each board of education will have different needs that require policy adjustments within the appropriate legal context. Selected samples are contained at the end of this chapter.

NOTES

1. Portions of this discussion have been adapted from R. C. Wood, "Financial Exigencies and the Dismissal of Public School Teachers: A Legal Perspective," *Government Union Review*, III (Fall, 1982), 49-66.

2. 353 N.E. 2d 567 (N.Y., 1976).

3. Id. at 568.

4. *Board of Educ. of Yonkers City School Dist. v. Yonkers Fed. of Teachers*, 386 N.Y.S. 2d 657 (N.Y. App. 1976).

5. Id. at 660.

6. Id.

7. *Bd. of Educ. v. Lakeland Fed'n of Teachers*, 381 N.Y.S. 2d 515 (N.Y., 1976).

8. *Spokane Educ. Ass'n v. Barnes*, 517 P. 2d 1362 (Washington, 1974).

9. Adapted from S. B. Neill and J. Curtis, *Staff Dismissal: Problems and Solutions* (Arlington, VA: American Ass'n of School Administrators) 80.

10. See e.g., *State ex rel. Bing v. Bd. of Educ.*, 7 N.W. 2d 544 (Minn. 1942); *Foesch v. Indep. School Dist. No. 646*, 223 N.W. 2d 371 (Minn., 1974); and *Milne v. School Comm. of Manchester*, 410 N.E. 2d 1216 (Mass., 1980).

11. See e.g., *Bing*, 7 N.W. at 556.

12. See e.g., *Bruinsma v. Wyoming Public Schools*, 197 N.W. 2d 95 (Mich., 1972), *Clune v. School Dist.*, 166 N.W. 11 (Wis., 1918), *Hall v. School Dist.* 24 Mo. App. 213 (1887), *School Town of Milford v. Zeigler*, 27 N.E. 303 (Ind., 1890).

13. See e.g., *Kuhl v. School Dist.*, 51 N.W. 2d 746 (Neb., 1952); *Ashby v. School Township*, 98 N.W. 2d 848 (Iowa, 1959); *Neilson v. Lincoln Parish School Bd.*, 125 So. 458 (La., 1929); *Morey v. Power*, 78 Tenn. 219, (1882).

14. 555 S.W. 2d 350, (Mo., 1977).

15. Id. at 352.

16. *California School Employees Ass'n v. Pasadena Unified School Dist.*, 139 Cal. Rep. 633 (1977).

17. *Unified School Dist. No. 480 v. Epperson*, 583 F. 2d 1118 (10th Circuit, 1978).

18. Id.

19. *Bradfute v. Renton School Dist. No. 403*, 557 P. 2d 147 (Wash., 1978). See also *Cigarski v. Lake Lehman School Dist.*, 407 A. 2d 460 (Pa., 1979).

20. *Baston v. Ricci*, 391, A. 2d 161 (Ct., 1978).

21. *Penzenstadler v. Avonworth School Dist.*, 403 A. 2d 621 (Pa., 1979). See also *Freiberg v. Bd. of Educ. of Big Bay De Noc School Dist.* 283 N.W. 2d 775 (Mich., 1979).

22. *Phillippi v. School Dist. of Springfield Township*, 367 A. 2d 1133 (Pa., 1977). See also *Andresky v. Allegheny School Dist.*, 437 A. 2d 1075 (Pa., 1981).

23. *Funston v. Dist. School Bd.*, 278 P. 1075 (Ore., 1929).

24. *Ehret v. Kulpmont Borough School Dist.*, 5 A. 2d 188 at 191 (Pa., 1939).

25. 81 So. 2d 817 (La., 1955).

26. Wisconsin does not have a state board of education.

27. See K. D. Moran, "Governance," *The Yearbook of School Law*, 1979, ed. P. K. Peile (Topeka KS: NOLPE, 1979) 8-9.

28. See e.g., *in re Miller, 17 Educ. Dep't Report, N.Y. Comm'r Dec. No. 9600* (1978), and *Fair Lawn Educ. Ass'n v. Fair Lawn Bd. of Educ.* 401, A. 2d 681 (N.J., 1979), for a discussion of local interests versus state interests.

29. E.g., Ala., *Ala. Codes 16-24-8;* Conn., *Conn. Gen. Stat.* s10-151; Me., *Me. Rev. Stat. Ann.* s20-161 (5); Minn. *Minn. Stat.* s125.12(6A-GG); Neb., *Neb. Rev. Stat.* s79-1254; N.C., *N.C. Gen. Stat.* s115-142(e) (1) (1). See also, *King v. Berkeley Unified School Dist.*, 152, Cal. Rptr. . 782 (1979); *in re Fallick, 18 Educ. Dep't Report ———. N.Y. Comm'r Dec. No. 9979* (1979); *Shelton v. Lauderdale County Bd. of Educ.*, 380 So. 2d 835 (Ala., 1980).

30. *Weisman v. Bd. of Educ. of Jefferson City School Dist.*, 547 P. 2d 1267 (Colo., 1978).

31. Id.

32. *Hartman v. Merged Area VI Community College*, 270 N.W. 2d 822 (Iowa, 1978).

33. *Briggs v. Bd. of Directors of the Hinton Community School Dist.*, 282 N.W. 2d 740 (Iowa, 1979).

34. 377 F. Supp. 227 (Wis., 1974).

35. Id. at 239.

36. For a complete discussion of early retirement cost effectiveness and legal considerations see R. C. Wood, "The Early Retirement Concept and A Fiscal Assessment Model for Public School Districts," *Journal of Education Finance*, 7 (Winter, 1982) 262-276.

37. See e.g., 298 N.W. 2d 371; *Jordahl v. Indep. School Dist. No. 129*, 225 N.W. 2d 224 (Minn., 1974); and *Hendrickson v. Indep. School Dist. No. 319*, 228 N.W. 2d 126 (Minn., 1975).

38. Id., at 1103-04.

39. *Foesch*, 223 N.W. 2d 371; *Jordahl v. Indep. School Dist. No. 129*, 225 N.W. 2d 224 (Minn., 1974); and *Hendrickson v. Indep. School Dist. No. 319*, 228 N.W. 2d 126 (Minn., 1975).

40. *Minn. Stat. Ann.* s125.12; *N.Y. Educ. Law* s2588; *Cal Educ. Code* s444955.

41. *Dykeman v. Bd. of Educ. of the Dist. of Coleridge*, Eighth Dist. of Cedar City, Nebraska No. 6688.

42. See *Barnes v. Mendenhall*, 183 N.E. 556 (Ind., 1932); *Watson v. Burnett*, 23 N.E. 2d 420 (Ind., 1939). See also, *Rappold v. Bd. of Educ. Cleveland Hills Union Free School Dist.*, 447 N.Y. S. 2d 126 (N.Y., 1982).

43. 376 P. 2d 968 (N.M. 1962).

44. 252 A. 2d 427 (Me., 1969).

45. *Singleton v. Jackson Mun. School Dist.*, 419 F. 2d 1211 (5th Circuit, 1970), *cert. denied* 390 U.S. 1032 (5th Circuit, 1973).

46. Id., at 1218.

47. *Pickens v. Okolona Mun. Separate School Dist.*, 527 F. 2d 358 (5th Circuit, 1976).

48. Id.

49. *Lee v. Chambers County Bd. of Educ.*, 533 F. 2d 132 (5th Circuit, 1976).

50. 388 F. Supp. 738 (S.D. Texas, 1975), *reversed* 554 F. 2d 1353 (5th Circuit, 1977), *cert. denied*, 434 U.S. 966 (1977).

51. 544 F. 2d 804 (5th. Circuit, 1977).

52. 569 F. 2d 1383 (5th Circuit, 1978).

53. Fifth Circuit Court, No. 78-3757, December 18, 1980.

54. See e.g., California, *Supra* note 30.

55. See e.g., *Barnes*, 183 N.E. 556; *Seidel v. Bd. of Educ. of Ventnor City*, 168 A. 297 (N.J., 1933); *Flechtner v. Bd. of Educ.*, 174 A. 529 (N.M., 1955); *Watson*, 23 N.E. 2d 420; *Pickens Bd. of Educ. v. Keasler*, 82 So. 2d 197 (Ala., 1957); *Hankenson v. Bd. of Educ.*, 146 N.E. 2d 194 (Ill., 1957); *State ex. rel, Marolt v. Indep. School Dist. No. 695*, 217 N.W. 2d 212 (Minn., 1974); *contra, Garovoy*, 424 A. 2d 297.

56. 287 P. 2d 73 (N.M., 1955).

57. *Fort Summer Mun. School Bd. v. Parsons,* 405 P. 2d 366 (N.M., 1971).

58. *Penasco Indep. School Dist. No. 4 v. Lucew*, 526 P. 2d 825 (N.M., 1974).

59. *Garowoy*, 424 A. 2d 297.

60. *Pennsylvania Labor Relations Bd. v. Greater Johnstown Area Vocational Technical School*, 410 A. 2d 1290.

61. *Board of Directors v. Teachers Ass'n* 392 a. 2d 1097 (Me., 1978).

62. 82 So. 2d 549 (Ala., 1959). See also *Paradis v. School Admin. Dist. 33 School Bd. No. 2967* (Maine Sup. Jud. Ct., 1982).

63. 119 A. 2d 43 (Pa., 1956).

64. See *Silver v. Bd. of Educ.*, 362 N.Y.S., 1975.

65. See *Karback v. Bd. of Educ.*, 114 Cal. Rptr. 84 (Ct. App., 1974).

66. *Higgins v. Bd. of Educ. of Community Unit School Dist. No. 303*, 428 N.E. 2d 1126 (Ill., 1981).

67. *Lezette v. Bd. of Educ.*, 319 N.E. 2d 189 (N.Y. 1974).

68. *Hill v. Dayton School Dist. No. 2*, 532 P. 2d 1154 (Wash., 1975).

69. 375 N.E. 2d 157 (Ill., 1978). See also *Dinersteein v. Bd. of Educ.*, 409 N.Y.S. 2d 22 (App. Div. 1978); and *Leonard v. Bd. of Educ.*, 373 N.E. 2d 477 (Ill. 1978).

70. See e.g., *Mroczek v. Bd. of Educ. of Beachwood City School Dist.*, 400 N.E. 2d 1362 (Ohio C.P., 1979); *Delagores v. Bd. of Educ. of the Town and City of West Haven*, 410 A. 2d 461 (Conn. Super. Ct. 1979); *Nagy v. Belle Vernon Area School Dist.*, 412 A. 2d 172 (Pa. Commonwealth Ct., 1980); *Krug v. Indep. School District No. 16*, 293 N.W. 2d N.W. 2d 26 (Minn., 1980); *Jenkintown School Dist.*, 441 A. 2d 816, (Pa., 1982).

71. *Lenard v. Bd. of Educ. of Fairfield School Dist.*, 384 N.E. 2d 1321 (Ill., 1979).

72. See e.g., *Johnson*, 377 F. Supp. 227; *Hill*, 119 A. 2d 43.

73. See e.g., *Brady v. Bd. of Trustees*, 242 N.W. 2d 616 (Neb., 1976); *Hill*, 119 A. 2d 43; *Schnabel v. Alcester School Dist. No. 61-i*, 295 N.W. 2d 340 (S.D., 1980).

74. See e.g., *Kramedas v. Bd. of Educ. of Christina School Dist.*, 523 F. Supp. 1268 (Del., 1981).

Appendix
Sample Contract Clause

Lay Off Clause

1. In the event of a reduction of teaching staff, the parties recognize the principle of seniority in the lay off or recall of staff within areas of certification and qualification.

2. For purposes of this section, the following definitions will apply:

a. "Certified" shall mean holding a current certificate in a subject matter area issued by ________________

b. "Seniority" shall mean continuous service as a teacher commencing with the first day in the school district.

c. "Qualified" or "Qualifications" shall mean a teacher who is full certified in the subject matter category as defined herein, and who is currently teaching or has successfully taught such subject matter category with the past —— years in the school district. A teacher shall appear on each subject matter seniority list for which he/she is qualified as defined herein.

3. In the event of reduction in staff, teachers shall be laid off in inverse order of seniority within area of qualification.

4. In the event of recall of staff, teachers shall be recalled in order of seniority within area of qualification.

a. A teacher shall have the right to recall for a period of —— years from the last duty day in the school district.

b. If a position becomes available for a qualified teacher on lay off, the school district shall mail written notice to such teacher at the last address on file as provided by the teacher and contained in school district records, who shall have —— calendar days from the date of such notice to respond in writing accepting or declining the offer of recall and an additional —— calendar days to report for duty, if the teacher accepts recall. Failure to provide written notice of acceptance or re-employment, or to report with the time period provided herein, shall constitute forfeiture of the right to recall and the teacher's right to recall shall be terminated.

5. In the event of equal seniority, the order of lay off and recall shall be within the discretion of the school district.

6. A teacher on lay off pursuant to this section shall retain such amount of experience credit for pay purposes and leave accrual and other accrued benefits, if any which he or she had accrued at the time he or she went on leave for use upon recall. Additional experience credit for pay purposes or other benefits shall accrue for the period of time that an employee is on lay off under this section.

7. For purposes of seniority standing, a teacher's seniority date will be uneffected by lay off pursuant to this section, or any board approved leave pursuant to this Agreement.

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Adapted from the School District of River Falls, Wisconsin.

Sample Board Policy

Reduction in Professional Staff Work Force

I. Definition of Terms

A. Service. The period of time from the effective date or an educational staff member's signed employment contract, commencing the most recent term of continuing service in the ———————School District, including sabbatical leave(s) and authorized leave(s) of absence. If two or more employees have the same length of service, they shall be ranked by date of contract offer that begins the most recent period of continuous service and, if necessary, date of receipt of most recent application resulting in employment, and finally, by lot.

B. Endorsement Areas

1. Subject Area. The teaching endorsement on the educational staff member's ———————Certificate. Comprehensive endorsements will be divided into their constituent endorsements for the purposes of determining subject area, provided, however, that the individual endorsements comprising the history and social science endorsements will be aggregated into a single subject area indicated as history/social science. A list of subject areas is attached.

2. Grade Area. The teaching endorsement on the educational staff member's ———————Certificate relating to elementary education. Elementary teaching endorsements will be grouped as follows: Kindergarten (K), grades 1-6.

C. Classification Areas. The position title currently held by an administrator or supervisor in the district as well as other miscellaneous positions.

D. Active Assignments. The endorsement area(s) in which the teacher is actively teaching (or if not actively teaching, the most recent teaching assignment) at such time as it becomes necessary to implement the destaffing or reduction-in-force procedure.

E. Layoff. A condition creating certain recall rights, attendant to termination resulting from displacement through the operation of this procedure.

II. Destaffing

A. Teachers

1. Whenever the board determines that there is an excess teacher(s) in an endorsement area in a particular school or workplace for such reasons as reduction in school population or the closing of a facility, the teacher(s) with least service who is actively teaching in the endorsement area will be designated for destaffing by receiving a written notice to that effect. Consideration for transfer will be given to volunteers in the endorsement area in the affected school before this provision is implemented. Notice of transfer request status will be given to teachers concerned as soon as possible but no later than ______________.

2. Teachers designated for destaffing will be ranked in order of service and by endorsement area. Said teachers will be assigned, in order of service, to available vacancies in their active assignments. If no vacancies are available in the teacher's active assignment, he or she will be assigned to an available vacancy in an endorsement area in which the teacher is certified. Said assignment will be made in order of service, provided, however, that assignment of vacancies outside the teacher's active assignment will not be made in circumstances where there are teachers to be destaffed in the endorsement area.

3. If a teacher refuses a position in an endorsement area in which he or she was actively teaching at the time of destaffing, the teacher will be terminated and will not be entitled to recall rights hereunder. If a teacher refuses an assignment outside

his or her active assignment, the teacher will be entitled to utilize the reduction-in-force procedure described below.

If no vacancies are available in a teacher's active assignment, and if the teacher is either ineligible for or elects not to accept vacancies outside his or her active assignment, said teacher will be entitled to exercise prerogatives set out in the reduction-in-force procedure.

B. Personnel in Classification and Miscellaneous Areas

1. Whenever the board determines that there is an excess number of persons in a classification area, including miscellaneous positions, at a particular facility for such reasons as reduction in school population or the closing of a facility, the person(s) in the classification area with least service at the facility will be designated for destaffing. Consideration for transfer will be given to volunteers in the classification area of the affected facility before this provision is implemented. Notice of transfer request status will be given to the persons concerned as soon as possible but no later than June 1.

2. Personnel designated for destaffing will be ranked in order of service and by classification area. Said personnel will be assigned, in order of service, to available vacancies in their classification area. If no vacancies are available in the person's classification, he or she will be entitled to utilize the reduction-in-force procedure hereunder.

3. If a person designated for destaffing refuses an available position in his or her classification area, said person will be terminated and will not be entitled to recall rights hereunder.

III. Reduction in Force

A. Whenever the board determines that there is an excess number of teachers in an endorsement area in the _______________ school district, or when destaff teachers or school system personnel in classification areas are entitled to exercise reduction-in-force rights in the teacher endorsement areas, for such reasons as substantial reduction in student population or the closing of a facility, the following procedure will apply:

1. System-wide service lists prepared by endorsement area and based on length of service in this school district will be established, a copy shall be placed in each school. These lists will include all persons presently employed by the _______________ (including persons on authorized leave of absence) who have service as educational staff members. Endorsements attained subsequent to the date the service lists are prepared will not be included on the said list until all persons in said list are recalled or forfeit recall rights.

2. Persons eligible for inclusion on the service lists described in subparagraph 1. will be ranked in order of service and may, in their order of service, displace the junior actively employed teachers in the displaced teachers' active assignments provided that the person exercising displacement rights has greater service than the teacher to be displaced. Where there is more than one person entitled to displacement rights in an endorsement area, said person will be assigned to an equivalent number of positions held by teachers with less service in the endorsement area.

This provision is not intended to permit a person with less service to displace an active teacher with more service. A person refusing assignment within said person's active assignment will be terminated and will not be entitled to recall rights hereunder.

3. In the event a person is not eligible to displace a teacher in his or her active assignment, the following procedure shall apply:

a. A master list of displaced personnel will be prepared in order of service. The list will include the endorsement areas of each person.

b. The person with the greatest service on the list will be assigned to the position held by the teacher with the least service in the displacing person's endorsement areas.

c. The procedure set out in subparagraph b. above will be followed subsequently for the remaining displaced personnel on the master list.

d. In no event will a person displace a teacher having greater service.

4. A person displaced from a teaching position by operation of this procedure will be eligible to displace teachers with less service in the displaced teacher's endorsement area.

5. A person who elects not to exercise displacement rights in his or her active assignment will be terminated.

6. A person who elects not to exercise displacement rights in his or her endorsement area (other than his or her active assignment) will be laid off.

B. The reduction-in-force procedure contained in subsection 3.a. above will apply to classification area positions with the following modifications:

1. Personnel who are eligible for displacement prerogatives by operation of the destaffing procedure or by virtue of having been designated as excess will be entitled to displace the junior person in their classification area providing the displacing person has more service than the person to be displaced.

2. If a person within a classification area lacks sufficient service to displace another person within his or her classification area, that person may exercise reduction-in-force prerogatives in the teacher classification as set forth in subsection 3.a. . For purposes of exercising displacement rights within a teacher's endorsement area, the classification area employee's active assignment will be deemed to be the endorsement area in which the employee most recently taught prior to assuming a classification are a position.

3. A person may only exercise displacement prerogatives with the classification area in which he or she is employed at the time he or she becomes eligible to exercise such rights, provided that intermediate and high school principals will be deemed eligible to displace intermediate and high school assistant principals according to the procedure set out in subsection III.A., and elementary school principals will be entitled to displace elementary school principals; except as provided above, a person's displacement prerogatives are limited to his or her classification area, and thereafter, to the teaching endorsement area.

4. Classification area personnel who elect not to exercise displacement rights within their classification area shall be terminated and will not be entitled to recall rights hereunder. Classification area personnel who elect not to exercise displace-

ment prerogatives in teacher endorsement areas and principals who elect not to displace assistant principals will be laid off and will be entitled to recall rights hereunder.

IV. Layoff and Recall

A. Educational staff members on layoff are terminated; however, upon recall, they will receive all previously accumulated service credit.

B. Teachers laid off as a result of this policy shall be ranked in order of service and by endorsement. When openings occur, the teacher on layoff with the greatest service in the endorsement area will be entitled to the position. If the opening is in the teacher's active assignment, the teacher must take the opening or lose all recall rights under this provision. If the opening is in the teacher's endorsement area but not in his or her active assignment, the teacher may elect whether or not to take the opening. If the teacher elects not to take the opening, his or her name will be struck from the recall list in that endorsement area, but he or she who retain recall rights in his or her other endorsement areas. Teachers who remain on layoff for up to three (3) years from date of layoff will enjoy no further right of recall.

C. Classification area personnel who are laid off as a result of this policy will be ranked in order of service and by classification area. Classification area personnel who exercise displacement rights in teaching endorsement areas, and principals who exercise displacement rights in the assistant principal classification area, will be eligible for recall on the same basis as classification area personnel who are laid off. For purposes of this provision, said persons will be deemed to be "persons on layoff status." When openings occur, the person of layoff status with the greatest service in the endorsement area will be entitled to the position. If the person elects not to accept the opening, he or she will forfeit entitlement of recall under this procedure.

D. When an educational staff member is to be recalled, he or she will be notified by registered mail (return receipt requested) at his or her last known address on record with the board.

If an education staff member so notified of recall does not accept in writing the offer of re-employment within ten (10) work days of receipt of notice, all right of recall under this provision will be forfeited. If the notice of recall is undeliverable, the educational staff member will forfeit the recall rights of this provision.

V. Part Time Teaching Positions

As an alternative to layoff an educational staff member may elect to accept an available part-time teaching or teacher aide position in the ______________ school district. For the purposes of this provision, an available part-time teacher or teacher aide position is defined as an opening created by the termination of an incumbent part-time teacher or teacher aide or the expansion of the available part-time teacher or teacher positions. Educational staff members eligible and certified for said positions will be notified by the Board and will be offered available positions in their order of service. An educational staff member electing to accept a position as a part-time teacher will retain the recall rights set out above. An educational staff member foregoing such alternative employment will retain his or her recall rights.

VI. Miscellaneous

Notwithstanding any other provisions of this policy dealing with displacement, educational staff members whose services are necessary to insure efficient operation may be retained irrespective of length service and will not be subject to displacement provided they are within the following assignments, limited to one individual for each activity in a school and provided the incumbents presently have and are to be reassigned the same responsibilities the following year:

High school and secondary school sponsors and coaches who fall under Categories I and II of the salary supplements regulation, the band director, the choral director, and the chairperson of the major departments, intermediate school newspaper, yearbook and SCA sponsors, and chairperson of the major departments.

A maximum of _____ educational staff members in addition to the above may be detained irrespective of length of service and will not be subjected to displacement if they are necessary to maintain program demands.

During a period of reduction-in-force, the Board shall limit the hiring of educational staff members to those positions that cannot be filled by qualified current educational staff members, including those returning from leaves of absence, as well as those employees being considered for reduction-in-force; provided, however, this provision will not operate to permit an educational staff member to claim a vacancy in a higher classification.

VII. Notice

Appropriate, certified employee organizations shall be notified in writing at least 30 days in advance of any pending layoff.

Adapted from Fairfax County School Board, Fairfax, Virginia.

21
Capital Outlay and Bonding

R. Craig Wood

The financing of educational facilities is an extremely broad and varied topic within the area of financing public education.[1] Nearly every state finances the construction of public school facilities from local sources of revenue. While the main source of revenue is the property tax, each state has its unique requirements concerning debt limits on borrowing, requirements for approval of bond issues and numerous other specifications. This chapter is intended to serve as a generic overview for school business administration students on the major tasks associated with financing large capital programs. There are numerous loan and grant programs, state purchases of local school district bonds and combinations of these programs that will not be addressed by this chapter. The chapter presents numerous examples to acquaint the student of school business management with the tasks involved. It is vitally important that the examples not be used as legal or financial advice. Discussions and examples are for illustration only and do not imply the offering of any legal or financial advice by the author.

Historical Setting

Financing capital outlay was of little concern in the early years of our country. When schools were constructed by volunteers with no thought or consideration for such things as tax rates, bonds and bond referendums. The National Education Finance Project Study reported that one hundred years ago when legislatures began enacting laws to allow the issuance of bonds for public school districts, they were primarily concerned with three things: protection of the bond purchasers, limitation of the amounts spent on construction and limitation of the public debt. Through the early 1900s, the major responsibility of financing the public school building rested with the local community. As late as 1941, it was reported that only twelve states made some financial provision for capital outlay and debt service. These states had "crude and inequitable distribution systems in which the principles of equalization were neither recognized or applied. . . ." Some states did loan money to local districts with low interest rates.[2] After World War II, however, number of states that contributed to capital outlay and debt service increased dramatically.[3] Possible reasons for this increase include the fact that: few school buildings were built during the Depression, population growth,[4] a surplus of state revenues[5] and the growth of minimum state standards for facilities.[6]

Recent Trends

Since the 1960s, most school finance reform has involved state equalization plans. While reformers have tended to concentrate on the basic foundational programs, little examination has been made of the area of capital outlay. Despite what are in many instances pressing needs, school districts with low property values have great difficulty financing educational facilities in many states. It has been suggested on several occasions that *Serrano* type litigation may occur with regard to the financing of capital outlay in certain states.

State aid for capital outlay and debt service grew from $78 million in 1951, to $633 million in 1970,[7] to an estimated $1.4 billion in 1979.[8] Yet, even after this tremendous expansion of state aid, it is estimated by the author that 80 percent of all funds for public school capital outlay and debt service will originate as local property tax. In perspective, the total capital outlay costs in 1979-80 amounted to approximately 7.5 percent of all funds expended for public elementary and secondary education in the United States.[9]

Bond Referendums

Local communities generally have strong input into the financing of school facilities. Well over 75 percent of all capital outlay costs are funded through bond sales which must be approved by a referendum. In general, the approval rate of such referendums has declined since the late 1950s. While the rate of passage has steadily declined, the number of offerings held for public approval has also declined. Offsetting this decline has been a steady and rapid climb of par values (amounts of principal) due to the escalating costs of construction, and the decline of purchasing power by school districts due to inflation.

Construction and Interest Costs

The number of classrooms constructed rose from 30,900 in 1949 to 75,000 in 1967[10] and then decreased dramatically. During this period, the average expenditure per classroom rose from $32,815 in 1949 to well over $60,000 in 1980. Inflation has been a major factor in the steadily increasing capital expenditures. The Cost of Commercial and Factory Building Index has increased from 100 in the base year 1972 to 201.8 in 1980, as estimated by the U.S. Department of Commerce. The Composite Construction Cost Index, which rose from 64.8 in 1963 to 2340.2 in December of 1980, represents a 255 percent decrease of purchasing power in seventeen years. The Composite Construction Cost Index rose nearly 40 percent from 163.7 in November of 1977 to 228.5 in November of 1980.[11]

During approximately this same period of time, interest rates increased from 3.11 percent in the early 1960s to a high of 10.56 percent in 1981 for all general obligation bonds. Consistently, general obligation bonds have shown the highest bond ratings and, conversely, the lowest interest rates. Non-rated bonds had the next highest interest rates, while revenue bonds had the highest overall interest rate reaching 11.41 percent in 1981. The net increase costs of bonds for school purposes sold by states have tended to be lower than those sold by minor government divisions (civil or school).[12] Over the past few years, not only has the cost of construction increased substantially, but also the cost of obtaining the money.

Population Projections

In many communities there is a backlog of needed classroom construction. This backlog constitutes the need of adequate housing for new and replacement classrooms for school children throughout the country. This backlog has continued to grow and add to the facilities needed to house new programs such as early childhood education. Special education will constitute the need for new and replacement facilities throughout the 1980s.

Since it is projected that the school age population will decrease, or at least remain stable during the 1980s, it may be assumed simplistically that public school districts will need fewer classrooms and thus need to build less in each succeeding year of the 1980s. The public is beginning to examine more critically the issuance of new debt because of rising construction costs dramatically juxtaposed with declining enrollments. On closer examination, however, local taxpayers may be called on to assume a greater tax burden for any of the following reasons:

- Population shifts within districts.
- Enrollment pattern among grade levels.
- Buildings that do not comply with safety and health standards.
- New educational programs.
- Changes necessary because of energy consumption.[11]

Additionally, on a state and regional level there are substantial variations in student population projections between states ranging from large increases to large decreases depending on migration patterns, economic conditions of the area and fertility rates. Some areas will need more classrooms while others will have a surplus.

Bonds

The vast majority of all moneys for capital outlay are raised through general obligation municipal bonds. School districts issue a bond where the payment is guaranteed by the full faith and credit of the issuer. A school district bond is a debt obligation of the school district. The general rule is that higher quality bonds pay lower yields (interest) to the investors. Generally, the bonds are payable by the ad valorem (property) taxes and in some cases other general revenues. A municipal bond is any bond issued by a state or local governmental unit including a school district. Since many variations exist due to state statutes, some fiscally dependent school systems issue bonds in the name of the county commissioners, city or town. There are numerous bonds that may be issued by governmental agencies ranging from lease-rental bonds to industrial aid revenue bonds. Brief mention is made of revenue bonds and holding corporations but this is mostly for informational purposes as few states permit school districts to engage in such activities.

Municipal bonds receive federal tax exempt status on their interest earnings. They are not exempt from federal inheritance taxes. Most states and localities also exempt municipal bond interest payments from taxes. Municipal bonds may be subject to state taxes in some states while other states exempt them only in the state of issuance. Such federal tax benefits are very attractive for many individuals. For example, an examination of the Economic Recovery Act of 1981 for federal taxes scheduled for 1984, reflects that a joint return with a taxable income of $50,000 would be in the 40 percent tax rate bracket. If that couple were to invest in school district bonds returning a net interest rate of 9.5 percent, the yield on this tax exempt security would be 15.83 percent. One can readily see the attractiveness of such investments. The security of most highly rated municipal bonds has been expressed by the New York Stock Exchange:

> They are considered second only to obligations to the Federal Government. During their severest test—The Great Depression—only about 1/5 of 1 percent suffered any loss of principal and less than 2 percent defaulted, that is, failed to pay interest or principal on time. In most of these cases, bondholders eventually received their interest and principal.[14]

Nearly all school bonds are serial bonds due to state statutes as a result of the mismanagement of term bonds during the early 1900s. Serial bonds are numbered and are payable, in accordance with state statute, semi-annually or annually during the life of the issue. The lower numbered bonds are retired first, paying greater shares of interest during the first stages of the issue. As the interest is payed, greater portions of the principal are paid. A sample amortization schedule is included in this chapter illustrating this concept.

In a few rare instances, some states permit the issuance of term bonds. A term bond permits payment on the interest only with the principal repayment due at the end of the issue. Again, adequate bond counsel is necessary to answer specific questions concerning the permissibility of term issues.

Sinking Funds

Allowed in a few states, sinking funds permit the school district to levy a specific tax, invest the funds over a period of time and use them for the construction of an educational facility. Critics of this process cite the erosion of the savings through inflation, numerous instances of mismanagement, poor investment practices and changed facility priorities over the life of the tax. Proponents cite the savings of the interest rates as well as the ease of not facing a referendum. Again, it must be stressed that the use of these cumulative building funds is limited to a few states.

Current Revenues

Financing capital outlay from current revenues is often suggested by those who cite the interest savings and ease of administration in their proposals. The use of moneys for capital outlay projects does not provide for leverage within the budget. Assuming maximization of the school budget, most moneys should be allocated to the direct learning activities of the schools. It is rare that the private sector finances its own internal growth from earnings. In like manner, school districts must issue bonds due to:

- Lack of cash flow or resources to tax.
- The attempt to maintain the tax rates on a reasonably consistent basis.
- The principle of inter-generation states that the school facility will be used by several generations of residents, and, therefore, it is improper for one generation to assume the entire burden.

- If we make the assumption that there will be some inflation within our society, the value of today's money will be less in the future in purchasing power; hence, simple rate of return on investment schedules may be determined reflecting that, over time, the building is being paid off with "cheaper" moneys.

Holding Corporations

In a few states, school districts are allowed to form holding corporations which, in actuality, are lease-rental arrangements for the construction and purchase of educational facilities. Essentially, states allow school districts to enter into lease-rental agreements with a public or private corporation in accordance with specific statutes. Such agreements usually specify that the school becomes the property of the school district when it is paid for in full. In the few states where such arrangements are allowed, the indebtedness under these arrangements is not considered against the constitutional or statutory limitations of bonded indebtedness. Generally, these holding corporations consist of a group of local citizens who form a corporation for the sole purpose of building a new facility. The holding corporation acquires the revenue under the auspices of the school district (usually treated as a revenue bond), builds the facility and leases it to the school district as a non-profit activity. Again it must be stressed that the employment of legal and financial counsel is absolutely essential, as such activities are limited to a few states.

Bond Ratings

The investment community which requires some form of uniform standard by which to judge the attractiveness of investments, has established a ratings system. Bond rating agencies are extremely important in protecting the investor's money as well as for the overall organization and comparability of issues. General obligation issues of any substantial size are rated generally by a private agency. The primary national bond ratings agencies are Moody's Investors, Standard and Poor's and Fitch Investors. Higher ratings represent better issues. It is important to note that the listing does not make the issue, but rather the issue makes the rating. With very few exceptions, the higher the rating, the lower the interest rate. Since lower ratings reflect greater risk, school districts are willing to pay higher interest rates to those who take the risk.

It is important to note that not all school districts' bonds are rated. For example, if the issue is to be sold to local investors, i.e., a local bank, rather than being rated, the bank officials may request certain financial information directly from the school district. Additionally, below certain dollar amounts, the rating agencies do not issue ratings (e.g., Moody's does not issue ratings for general obligation bonds below $1.5 million).

While each agency is different with respect to rating structure, the ratings are based on the soundness of investment to the lender. The following are explanations provided by Moody for its municipal bond rating system:

Aaa

Bonds which are rated Aaa are judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as "gilt edge." Interest payments are protected by a large or by an exceptionally stable margin and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most to likely to impair the fundamentally strong position of such issues.

Aa

Bonds which are rated Aa are judged to be of high quality by all standards. Together with the Aaa group they comprise what are generally known as high grade bonds. They are rated lower than the best bonds because margins of protection may not be as large as in Aaa securities or fluctuation of protective elements may be of greater amplitude or there may be other elements present which make the long-term risks appear somewhat larger than in Aaa securities.

A

Bonds which are rated A possess many favorable investment attributes and are to be considered as upper medium grade obligations. Factors giving security to principal and interest are considered adequate, but elements may be present which suggest a susceptibility to impairment sometime in the future.

Baa

Bonds which are rated Baa are considered as medium grade obligation; i.e., they are neither highly protected nor poorly secured. Interest payments and principal security appear adequate for the present but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and, in fact, have speculative characteristics as well.

Ba

Bonds which are rated Ba are judged to have speculative elements; their future cannot be considered as well-assured. Often the protection of interest and principal payments may be very moderate, and thereby not well safeguarded during both good and bad times over the future. Uncertainty of position characterizes bonds in this class.

B

Bonds which are rated B generally lack characteristics of the desirable investment. Assurance of interest and principal payments or of maintenance of other terms of the contract over any long period of time may be small.

Caa

Bonds which are rated Caa are of poor standing. Such issues may be in default or there may be present elements of danger with respect to principal or interest.

Ca

Bonds which are rated Ca represent obligations which are speculative in a high degree. Such issues are often in default or have other marked shortcomings.

C

Bonds which are rated C are the lowest rated class of bonds, and issues so rated can be regarded as having poor prospects of ever attaining any real investment standing.

Con . . .

Bonds for which the security depends upon the completion of some act or the fulfillment of some condition are rated conditionally. These are bonds secured by a) earnings of projects under construction, b) earnings of projects unseasoned in operating experience, c) rentals which begin when facilities are completed, or d) payments to which some other limited condition attaches. Parenthetical rating denotes probable credit stature upon completion of construction or elimination of basis of condition.

Those bonds in the A and Baa groups which Moody's believes possess the strongest investment attributes are designated by the symbols of A 1 and Baa 1.

Standard and Poor's system of ratings have different symbols which reflect the soundness of investments. Briefly, Standard and Poor's system ratings are as follows:

AAA	Prime
AA	High Grade
A	Upper Medium Grade
BBB	Medium Grade
BB	Lower Medium Grade
B	Some Degree of Speculation
CCC	Greater Degree of Speculation
CC	Greatest Degree of Speculation
C,DDD,DD	Various Degrees of Default

Each rating agency charges a fee for rating an issue. Charges vary from a few hundred dollars for a small and simple issue to a high of $15,000 for large and complex issues. The rating for a particular issue is normally in effect until the issue is retired. Each firm releases the rating to the *Daily Bond Buyer*, in order for the issue to be examined by the investment community. Additionally, each firm publishes this information and makes it available to the investment community.

It should also be noted that not all issues are rated. Generally, small issues ($1.5 million) are not rated. Many issues are sold, pursuant to state statutes, in public sales without a rating. Small school districts issuing notes for rather small amounts often find it advantageous to sell the notes directly to a local bank. Usually the bank will resell the issue to local investors.

Legal Services

Every school district must employ competent legal counsel in issuing a bond. The school business administrator must, without exception, consult closely with a law firm that has extensive experience with the issuance of public bonds. The bond attorney functions as the legal adviser to the board of education and ultimately to the investor. The attorney is concerned with the mechanics of the issue as well as the overall thrust of the issue in relationship to the legal thinking of the courts regarding the issue's appropriateness.

Most experienced bond firms maintain the necessary forms and documents normally in a computer. Fees vary from state to state based on the complexity of the state statutes and the time and costs incurred in examining all the necessary information. Bond counsels usually employ a quality school bond consultant to assist with the transaction. A small privately sold issue may result in very modest legal fees. A large, complex undertaking, such as a formation of a holding corporation for a special education cooperative involving many school districts, might result in fees of several hundred thousand dollars.

Moody's has offered the following advice regarding the selection of a legal adviser:

> The importance of competent legal guidance from the very start of your issue's preparation cannot be overemphasized. Once you decide on an improvement program, and choose to issue bonds instead of paying as you go, your first step should be the selection of an attorney skilled in handling municipal bonds. In general, the more experienced the attorney, the more money he will save you as a bond issuer and the less trouble you will have in bringing your bond issue to market.
>
> Your attorney drafts or approves the original bond resolutions and ordinances, the notice of the bond election, and the form of the ballot if an election is required under local law. Once voters have approved the issue, he reviews the preparation of a possible prospectus, financial advertisements, and the entire "package" presented to underwriters for bidding. After the bonds have been sold, printed, paid for and delivered, he renders a final legal opinion. Bond buyers today rarely accept delivery of bonds if such an opinion is not furnished.
>
> Perhaps your public unit's own counsel or another local attorney may be able to do as fine a job as a specialist, but it is better not to take the chance. Just a tiny technical error may require that you re-advertise the offering. Also, a bond accompanied by what underwriters call a "local" opinion generally sells at a lower rate (i.e., higher interest cost) than a bond of the same public unit which carries a "marketable opinion." A marketable opinion is simply an opinion by a legal specialist whom underwriters and investors recognize as of proven competence.
>
> Dealers want to know before they bid that a final legal opinion will be furnished with the bonds when delivered.
>
> If, for some reason, your community decides not to secure a legal opinion, it must allow the bidders to name their own attorneys. This, quite naturally, will be at the community's expense. Bidders will subtract it from the price they offer for the issue.[15]

Moody's offers a specific checklist for the issuance of municipal bonds that is applicable to school business administrators involved in a school bond issue. Some of the items on the checklists are:

✓ Retained an attorney with extensive experience in the laws of your state that affect municipal bonds.

✓ Retained an attorney who has a record of "marketable opinions"

✓ Turned over to the attorney all proceedings preliminary to those in which he, himself, participated.

Consulted the attorney in all phases of issue, including:
✓ election (if any) notices
✓ election (if any) procedures
✓ method of determining the best legally acceptable bid.

Financial Advisement

Increasingly over the last few years, governmental units have been turning to financial advisement individuals/firms for expertise in issuing bonds. School districts have often found that the independent financial adviser is an extremely cost effective means by which the overall efficiency of return is increased. School districts rarely retain on staff a person skilled in bond market analysis, preparing the prospectus, advanced refunding and reinvestment of proceeds. A financial adviser may be particularly helpful in answering the following questions for a school district:

Is the financial undertaking feasible?

Are the economic resources sufficient to support a marketable financial plan?

What are the various financial options?

What is the most marketable, least costly debt retirement program?

What are the most efficient issue sizes, maturity schedules, prepayment options and bidding provisions for the proposed project?

What covenants will protect the interests of the investor and the school district?

What is the optimum timing for the new issue?

What should be done to make an accurate presentation to the rating agency?

How can the school district create maximum demand for the issue?

How can investments of the proceeds maximize the use of temporarily idle funds?

What are the future needs, based on the economy and growth of the school district?"[16]

The independent financial adviser oftentimes has the expertise to examine the school district's financial position and to represent the district in the bond market as well as to handle the reinvestment schedules for maximum efficiency to the district. These services are often necessary for the small school district that has rarely sold bonds and does not expect to sell additional bonds within the near future. The financial adviser should be willing to provide certain services such as:

- Consult with architects, engineers and bond attorneys in the preparation of financing plan, resolutions, ordinances and certificates.
- Assist in the timely publication of official documents.
- Coordinate the formation of an appropriate holding corporation/building authority (where legally permissible).
- Answer any questions, if necessary, of various governmental authorities or school community groups.
- Prepare and distribute the official prospectus to bidders in the major money markets.
- Prepare and present the appropriate materials for optimum credit ratings.
- Arrange and conduct informational meetings for the investment community.
- Conduct the sale.
- Coordinate the printing of bonds and closing documents for timely delivery to the purchaser.
- Analyze cash flow and manage the investments of bond proceeds."[17]

It is important to note that the financial adviser should tailor the services to fit the needs of the school district. For example the needs and desires of a small school district that may face the issuing of general obligation bonds once every thirty years are obviously different than that of a major urban school district that is constantly entering into long-term debt as well as retiring debt issues.

The worthiness of hiring an individual/firm to serve as the financial adviser in issuing general obligation bonds or entering into any form of debt cannot be looked upon lightly. The employment of such an individual/firm may prove to be quite cost effective for many smaller school districts.

The Prospectus

The prospectus, or official statement, is the document that communicates all the needed information about the school district to the financial community. It is, by necessity, a complete description of the community, i.e., the school district and the factors that bear on the future economic outlook of the community.

An outline of a Prospectus follows each section of which it is important to note that the details will change according to each situation and the applicable state law. Under no circumstances should a school business administrator view these examples as being applicable to his or her situation. Nor, is it to be interpreted as legal or financial advice.

Statement

The official statement is usually found in the beginning of the prospectus. Normally, it summarizes and highlights the issue. An example of a twenty-year general obligation bond statement appears below:

OFFICIAL STATEMENT
(NEW ISSUE)

SCHOOL BUILDING BONDS
SCHOOL DISTRICT OF _______________

Bonds Dated _______________ Principal Due _______________

These Bonds are being issued pursuant to _______________ for the purpose of paying for construction, erecting and equipping _______________.

The Bonds will be general obligation of the District for which the full faith and credit and unlimited taxing powers are pledged.

The bonds are being issued in registered for, $ _______________ denominations. Interest is payable _______________, _______ and semiannually thereafter.

Bids must be for not less than _______________ and accrued interest on the total principal amount of the issue. Bids must be accompanied by a certified or cashier's check in the amount of _______________ payable to the order of the School District Treasurer.

The Bonds will mature _______________ in the amounts and years as follows:

1985 _______________
1986 _______________
1987 _______________
1988 _______________
1989 _______________
1990 _______________
1991 _______________
1992 _______________
1993 _______________
1994 _______________
1995 _______________
1996 _______________
1997 _______________
1998 _______________
1999 _______________
2000 _______________
2001 _______________
2002 _______________
2003 _______________
2004 _______________

Bonds maturing in the years _______________ are subject to redemption on _______, _______ and any interest payment date thereafter at par plus accrued interest.

The Bonds are offered subject to the legal opinion of

____

In the opinion of Bond Counsel, interest on the Bonds is exempt from present Federal Income Taxes.

Bid Opening & Award Time ____

Rating: An application has been made to Moody's Investors Service, Inc.

The Date of this Official Statement is _______________

Purpose

The statement of purpose would normally follow the Official Statement. Depending on the complexity and various state legal requirements, it may be simple or extremely detailed. An example of a simple statement might be, "The bonds will be issued to finance the cost of improvements to school buildings." However, more complex circumstances and legal requirements may warrant a more detailed explanation, for example:

> These Bonds are being issued pursuant to ____________________ for the purposes of building and equipping an elementary school complex and a swimming pool addition. The new school will replace the _______________ Elementary School that was gutted by fire on _______________. The School Board unanimously voted on _______________ to accept an insurance settlement of _______________. These funds, in addition to the proceeds of this issue, comprise the building program.
>
> Students displaced from the burnt facility were housed in various rural structures, churches and the City's Armory. Additional cost to the District is _______________ per month for rental of _______________ structures.
>
> On _______________ the electors of the District authorized by a vote of __________ "yes" to _______________ "no" to borrow an amount not to exceed _______________ of its general obligation bonds for the purpose of building and equipping an elementary school complex; and by a vote of _______________ "yes" to _______________ "no" to borrow an amount not to exceed _______________ of its general obligation bonds for the purpose of building and equipping a swimming pool addition to the elementary school complex.
>
> The new school will be built on land already owned by the District. An architectural firm has been retained. At the present time, the School District intends to sell the old site and fire damaged building and use the proceeds to reduce outstanding indebtedness. Occupancy of the new school is anticipated to occur in the fall of __________.

Date, Type, Denomination and Maturities

The dates, types and denominations are shown in the following example. This example reflects a non-callable issue.

The Notes will be dated as of _______________, will be issued as registered negotiable investment securities, will be in the denomination of _______________ each unless designated otherwise by the purchase within 48 hours of award of sale, and will mature serially, without option of prior payment, on ________ in the following years and amounts:

	PAYMENT	PERIOD	PRINCIPAL	INTEREST	TOTAL
1.	12/2/84	12/1/85		$593,750.00	$593,750.00
2.	12/2/85	12/1/86	$115,000.00	$475,000.00	$590,000.00
3.	12/2/86	12/1/87	$125,000.00	$464,075.00	$589,000.00
4.	12/2/87	12/1/88	$140,000.00	$452,200.00	$592,200.00
5.	12/2/88	12/1/89	$150,000.00	$438,900.00	$588,000.00
6.	12/2/89	12/1/90	$165,000.00	$424,650.00	$589,650.00
7.	12/2/90	12/1/91	$180,000.00	$408,975.00	$588,975.00
8.	12/2/91	12/1/92	$200,000.00	$391,875.00	$591,875.00
9.	12/2/92	12/1/93	$215,000.00	$372,875.00	$587,875.00
10.	12/2/93	12/1/94	$240,000.00	$352,450.00	$592,450.00
11.	12/2/94	12/1/95	$260,000.00	$329,650.00	$589,650.00
12.	12/2/95	12/1/96	$285,000.00	$304,950.00	$589,950.00
13.	12/2/96	12/1/97	$315,000.00	$277,875.00	$592,875.00
14.	12/2/97	12/1/98	$345,000.00	$247,950.00	$592,950.00
15.	12/2/98	12/1/99	$375,000.00	$215,175.00	$590,175.00
16.	12/2/99	12/1/00	$410,000.00	$179,550.00	$589,550.00
17.	12/2/00	12/1/01	$450,000.00	$140,600.00	$590,600.00
18.	12/2/01	12/1/02	$490,000.00	$ 97,850.00	$587,850.00
19.	12/2/02	12/1/03	$540,000.00	$ 51,300.00	$591,300.00
TOTAL			$5,000,000.	$6,219,650.	$11,219,650.

The previous data are for a twenty-year general obligation bond at 9.5 percent over the life of the issue. Note the delay of the payment of the principal. This example reflects an even payment period over the life of the issue. In many states this even payment schedule is required by statute.

Paying Agent

It is customary that the successful bidder be allowed to reasonably designate the depositor to which the future payments shall be made. The following statement reflects this practice and the conditions of specificity:

> Principal and interest will be made payable to any suitable bank designated by the successful bidder within 48 hours after award of sale, subject to approval by the School Board, and the District will pay the reasonable and customary paying agency charges. If the paying agent is not selected within 48 hours after the award of sale, or if it is not satisfactory to the District, the District will select the paying agent.

Interest Payment Dates and Rates

It is important to note that the prospectus clearly outlines the method of bidding the fractions and the maximum amount that the district will entertain in the cost of borrowing funds. In order to make the bidding on an even more competitive basis and the ease of ascertaining what the lowest bid is, it is common to see a specified range for the bids (e.g., 1.5 percent). It is customarily stated that the bonds be bid on face value, i.e., for the full amount plus interest as opposed to a discount which is for less than the face amount, the difference is the discount reflecting the interest. A statement to that effect is as follows:

> Bidders are requested to name the interest rate or rates the bonds are to bear in multiples of one-twentieth of one percent, but not exceeding _________ percent per annum. The difference between the highest and the lowest rate bid shall not exceed _________ percent. There will be no limit on the number of rates of interest that may be specified. One rate of interest shall apply to all bonds of the same maturity. Interest payable on any bond on any interest payment date shall be represented by payment schedule, and no bid will be considered for less than par and accrued interest for all of the bonds.

Delivery

Delivery deadlines and language often vary; however, a time line, cost, if any, and other dates as necessary may be included. Three examples of a delivery statement follow:

> *Example 1*. The bonds are expected to be ready for delivery within 30 days after the sale. Delivery anywhere in the continental United States will be made at the expense of the school district. Payment for the bonds must be made in federal funds or other immediately available funds.
>
> *Example 2*. The district will furnish without cost to the purchaser and within 60 days after award of sale the printed and executed Notes, the legal opinion of _____________, and the usual no-litigation certificate. Delivery will be made without cost to the purchaser at the place of the purchaser's choice. Payment for the Notes must be made in funds immediately available to the District on the date of delivery.
>
> *Example 3*. Within 40 days of the date of the sale, and without cost to the purchaser, the District will furnish and deliver at any point in the continental United States, the printed and executed certificates, and the opinion thereon of _________, to the effect that the certificates of indebtedness are valid and legally binding obligations of the District and, unless paid from other sources, are payable from ad valorem taxes levied upon all of the taxable property within the District without limitation as to rate or amount.

Legal Opinion

Legal opinions will vary dependent on the state and firm offering the opinion. If an unfavorable preliminary opinion were to be issued, the sale should be cancelled or delayed by the school business administrator until all legal qualifications have been fully met. Generally, the final legal opinion is not issued until after the sale. Again, the reader is cautioned that these examples are given to familiarize the potential school business administration student with legal opinions. Under no circumstances should these examples be considered as offering legal advice. Additionally, the reader should note that legal opinions will vary depending on the legal firm and the applicable state statutes.

> *EXAMPLE 1*. We have acted as Bond Counsel in connection with the issuance by School District of _____________, State of _________, of its Certificates of Indebtedness, dated as of _________, in the aggregate principal amount of _________. The Certificates bear interest at the rate of

__________ percent (_____%) per annum and are payable as to both principal and interest on __________, without option of prior payment. The Certificates bear serial numbers and are in denominations as follows:

Serial Numbers	Denominations, Each
##############	---------------

Both Principal and interest are payable at __________, in __________, __________.

For the purpose of giving this opinion, we examined certified copies of certain proceedings taken by the School District in the Authorization, sale and issuance of the Certificates, including the form of the Certificates, and certain other proceedings and documents furnished by the School District. From our examination of such proceedings and other documents, assuming the genuineness of the signatures thereon, and the accuracy of the facts stated therein, and based upon laws, regulations, rulings and decisions in effect as of the date thereon, in our opinion:

1. The Certificates are in due form, have been executed and delivered and are valid and binding general obligations of the School District in accordance with their terms to which the full faith and receipts of the School District are pledged.

2. The Certificates are issued in anticipation of the receipt of taxes levied for its __________ fund for collection in __________, of which an amount equal to the principal and the interest on the Certificates has been irrevocably appropriated to a special debt service fund for the payment of such principal and interest. All of the taxable property within the School District is subject to the levy of additional taxes if needed for the payment of the Certificates, without limitation as to rate or amount.

3. The Certificates are exempt from taxation as property by the State of __________ and its subdivisions and municipalities and the interest to be paid on the Certificates is not included in gross income of the recipient for United States or State of __________ income tax purposes, except __________ corporate franchise taxes measured by net income.

Dated at __________, __________, __________, __________

EXAMPLE 2. The bonds are dated __________, __________, __________; are of $__________ denomination; are numbered 1 to _____, inclusive; mature serially on __________ of each of the years and in the amounts as set forth below and bear interest payable __________ and semiannually thereafter on _____ and _____ of each year at the rates per annum as follows:

Year	Amount	Interest Rate
####	$$$$$$	%%%%%%%%%%%%

Bonds maturing on and after __________, __________ are subject to redemption prior to maturity as a whole, or in part in inverse order of maturity and within each maturity by lot, on __________, __________ and on any interest payment date thereafter at the principal amount thereof and accrued interest to the date of redemption.

> We have examined the documents which we deem pertinent to the validity of said bonds, including the certified record evidencing the authorization of said bonds by the City Council of said city. On the basis of such examination, we are of the opinion that said bonds have been lawfully authorized and issued under the laws of the State of __________; that they are the lawful and enforceable obligations of said city in accordance with their terms; that they are payable from taxes to be levied on all taxable property in said city, without limitation as to rate or amount; and that executed bond number one of said issue, which we have examined, is in proper form.
>
> It is our opinion, based on existing laws, regulations, decisions and interpretations, that interest on said bonds is exempt from present Federal Income Taxes.

Types of Bid and Award

Certain states have a prescribed manner in which bids must be let. A few states specify that all bids must reflect one interest rate for the entire issue. Generally, the bidder may specify any combination of rates. The comparison of multiple rates is relatively simple Good faith checks, based on statute and custom vary from state to state. A good faith check generally is required for 1 to 5 percent of the par value of the issue and is included in the bid documents. The following reflects a multi-interest rate bid, the method of calculation and the manner of award.

> Sealed bids may be mailed or delivered to the undersigned and must be received prior to the time of said meeting. Each bid must be unconditional except as to legality, which may be conditioned upon the legal opinion specified previously, and must be accompanied by a cashier's or certified check or bank draft in the amount of __________ payable to the School District Treasurer, to be retained by the School District as liquidated damages if the bid is accepted and the bidder fails to comply therewith. The bid authorizing the lowest net interest cost (total interest from date of certificates to maturity less any cash premium) will be deemed the most favorable. No oral bid, and no bid of less than par will be considered, and the School Board reserves the right to reject any and all bids and to waive any informality in any bids.

Since the purpose of the prospectus is to attract the highest possible bond rating and thus the lowest interest rate for the school district, full and honest disclosure of all pertinent financial information is absolutely necessary. Failure to provide full and complete disclosure may drive up the interest rate or preclude any bids. The following data are representative of the types of information normally found in a prospectus:

VALUATIONS	1985/86 Equalized	1985/86 Assessed
"A" County	$150,092,698	$66,838,503
"B" County	29,321,180	4,754,233

Prior Years:	
1983/84	$154,815,000
1982/83	131,405,800
1981/82	116,830,900
1980/81	99,564,700

ANALYSIS OF CURRENT EQUALIZED VALUATION
OF A SCHOOL DISTRICT

1985 EQUALIZED In School District		% OF District Valuation
City of "A"	$43,960,960	24.50%
Township of "B"	58,628,070	32.68%
Township of "C"	14,873,790	8.29%
Township of "D"	11,766,652	6.56%
Township of "E"	1,627,396	.91%
Township of "F"	6,168,500	3.44%
Township of "G"	6,561,750	3.66%
Township of "H"	6,505,580	3.62%
Township of "I"	5,550,700	3.09%
Township of "J"	23,770,480	13.25%
	179,413,878	100.00%

General Obligation Direct Debt—As of January 1, 198-

Purpose	Dated	Rates	Maturities	Principal Amount Outstanding
School Building Bonds	4-1-67	3.25%	4-1982/87	$165,000

Various states have limitations on the amount of debt that may be incurred by school districts within those states. This limitation varies among the states and must be carefully ascertained. Generally, the total outstanding principal of all the general obligations bonds is limited to a percentage of the assessed valuation. The prospectus should reflect such a condition, for example:

DEBT LIMITATIONS

Pursuant to _______________ Constitution and Statutes, the District of _______________ is subject to a debt limitation of _____ percent of the value of taxable property located herein as assessed for state purposes.

Legal Debt Limit for District (_____% of Assessed Value)	$$$$$$$$$$
Debt Outstanding as of _____	$$$$$$$$$$
Current Debt Capacity	$$$$$$$$$$

It is also important to realize that bond ratings reflect total outstanding debt from all forms of governmental indebtedness. That is, the taxpayers who reside within the district are also subject to additional taxes. Despite the fact that a given school district may have little, if any, debt, the outstanding debt of other governmental units may reflect adversely on the school district. In those states where school systems are part of and co-mingled with county/city forms of government, the problem of overlapping debt is not reflected. The debt of the school district is reflected within the overall governmental structure. A brief example of an overlapping debt schedule is reflected as an example of this display:

OVERLAPPING DEBT

Valuation in District Net General Obligations

	Total 85/86 Assessed Value	Amount
"A" County	$4,588,800,295	$472,295,567
"B" County	163,280,902	1,292,263
City of "C"	475,172,286	472,295,567
City of "D"	20,947,237	1,292,263
I.S.D. No. 1	2,854,868,356	473,577,830
Metro Council	8,174,627,264	473,577,838
Metro Transit	7,580,857,145	473,587,838
Metro Airport	8,174,627,264	473,587,838

	%	Debt	Net G.O. Debt to District
"A" County	10.29%	$41,450,000	$ 4,265,205
"B" County	.79%	780,000	6,162
City of "C"	99.39%	29,454,984(1)	29,275,309
City of "D"	6.16%	6,020,000	370,832
I.S.D. No. 1	16.58%	16,300,000	2,702,540
Metro Council	5.79%	36,300,000(2)	2,101,770
Metro Transit	6.24%	9,850,000	614,640
Metro Airport	5.79%	-0-	-0-
			$39,336,458

1) Excludes $4,015,000 Utility bonds and $525,000 State-Aid Street Bonds which are G.O. backed but supported primarily by systems revenues and state aids, and $1,080,000 recreational Facility Bonds payable from gross revenues. Also less $16,000,000 sinking funds and $5,500,000 utility revenue supported portion.

2) Excludes general obligation where bonds of the Metropolitan Council refunded January 1, 1979, and supported by an escrow fund established from refunding bond proceeds. Also excludes $945,000 Tax Anticipation Certificates due January 1, 1986. Excludes 487,000,000 of sewer bonds issued by the Metropolitan Council and metropolitan sewer system, which debt has been assumed by the Metropolitan Council. These bonds are supported from sewer service charges to the governmental units within the metropolitan sewer system. Includes Metropolitan Council bonds for parks and open space.

3) Excludes $175,000,000 current debt service of the Metropolitan Airports Commission, which is required to be fully supported by revenues from charges for the use of airports by airlines and others. Any tax levies for deficiencies must be reimbursed from increase charges.

The taxes per $1,000 of assessed value is usually found within the prospectus for the past several years. In many states the taxes are reflected on the basis of dollars and cents per $100 of assessed valuation. An abbreviated example of an assessed valuation table with the necessary explanatory statements are shown:

TAXES PER $1,000 OF ASSESSED VALUE (1)

	1985/86	1984/85	1983/84	1982/83
Special Sch Dist. No. 1	$49.529	$49.426	$50.220	$50.463
City of "A"	43.421	48.564	48.571	43.711
Misc. (2)	3.493	3.052	4.416	3.508
" B "				
County	29.352	29.050	27.787	26.436
	$125.795	$130.029	$129.994	$124.118

1) Before property tax relief credit on homestead property at 45% of taxes (except County and City debt service taxes) to a maximum of $325.
2) Miscellaneous levies include those for the metropolitan Council, Metropolitan Transit Commission, Housing and Redevelopment Authority, Mosquito Control Board, Park Museum, and Watershed District No. 1.

In many states the mill rate is computed on the basis of several funds that make up the total school district tax. In those states that employ the use of multiple levies, a detailed sub-fund mill tax rate is shown such as the following example:

DETAIL OF 1985/86 SCHOOL DISTRICT MILL RATE

General Educational Program	31.002
Maintenance	3.808
Transportation	1.444
Additional School Services	1.772
Community Service	.570
Municipal Employees Retirement	2.596
Capital Outlay	3.398
Unemployment Compensation	.342
Debt Service	6.909
Statutory Operating Debt	1.690
	53.531

Normally, a brief explanation of the method of school tax collection is included in the prospectus. The following is an example:

> The tax year in ______________ is January 1 to December 31 and taxes are collected by the county treasurer. The sequence of events in the taxation of property begins with the certification of the property tax budget levy to the county auditor in the fall. The county auditor then calculates the mill rates and spreads the taxes designed to meet these budget requirements. The resulting taxes on property are payable the following year. The due dates for payment of taxes on real property are: one-half on or before May 31 and the remaining one-half on or before October 31. The due dates for payment of personal property taxes are: one-half on or before February 28 and one-half on or before June 1. On June 1 a penalty of 3% is charged against all unpaid taxes on property that has been accorded the homestead classification, and a penalty is charged on the first day of each month up to and including November 1 for both homestead and non-homestead property. On the first Monday in January following the year in which taxes are due, the penalty increase to a maximum of 10% on homestead and 14% on non-homestead property. Interest commences the second Monday in May following the year in which the taxes became due at the rate of 6% per annum. Personal property taxes are penalized at a rate of 8%.

Often the prospectus reflects the total tax levy that is not the amount of moneys that the school district actually receives. In these instances a tax collection table is necessary. The following illustrates an example of a tax collection table.

TAX COLLECTIONS

Tax Yr.	Tax Yr.	1st. Yr. Coll. Amount	%	Coll. to 1/1/86 Amount	%
1985/86	$4,029,000	In Progress			
1984/85	4,999,760			$4,986,343	99.73%
1983/84	5,012,239	$5,002,861	99.81%	5,004,054	99.83%
1982/83	4,380,449	4,367,814	99.71%	4,371,666	99.79%
1981/82	3,830,449	3,816,640	99.64%	3,822,400	99.79%
1980/81	3,530,904	3,521,143	99.74%	3,524,958	99.83%
1979/80	3,481,859	3,473,743	99.77%	3,477,219	99.87%
1978/79	2,452,036	2,420,466	98.71%	2,437,452	99.41%

In order to satisfy the requirements of full disclosure, the prospectus reflects an overall budgetary picture. Each state has different reporting and accounting requirements. Regardless of the state requirements, the prospectus must reflect generally accepted accounting practices. Usually, it is necessary for the school district to meet the requirements set forth by the Governmental, Accounting and Financial Reporting (GAFR) Audits of State and Local Governmental Units Standards. Further discussion of these points are contained in Chapter 5, "Educational Accounting Procedures," by S.B. Tidwell. The reader may also wish to consult Tidwell's *Financial and Managerial Accounting for Elementary and Secondary School Systems*,[8] for the definitive text in this area of school finance.

It should be stressed that the school business administrator must employ a qualified accounting firm to examine, audit and provide a financial overview acceptable to the investment community. The school district must meet all the rules and regulations of the GAFR and all applicable accounting procedures above and beyond what the state or local requirements may be. The following is an example of notes to financial statements pertaining to accounting procedures.

SCHOOL DISTRICT "A"
NOTES TO STATEMENTS OF RECEIPTS AND DISBURSEMENTS
Year Ended June 30, 1986

Note 1. *Summary Of Significant Accounting Policies*

a) Accounting Method: the accounts of the school district are maintained, and the accompanying statements have been prepared on the cash basis of accounting in conformity with accounting practices prescribed by the ______________ Department of Public Instruction. Accordingly, income and expenses are recognized only as cash as received or disbursed and receivable, inventories, prepaid expenses, accrued expenses and vouchers payable are not reflected in the financial statements. Purchases of property and equipment are recorded as disbursements of various funds when paid. Checks for teachers' salaries and related benefits for July and August are written prior to June 30, and are therefore reflected in the bank balance.

b) Uncollected Local Property taxes: At June 20, 1985, uncollected local property taxes aggregating $ _____ were due the School District for the year then ended. This represents an increase of $ _____ over the amount receivable one year earlier. These property taxes receivable have not been reflected in the accompanying statements.

Note 2. *Cash And Investments*

The debt service fund, building fund and pupil activity fund each account for transactions through a separate and distinct bank account or investment fund. Transaction of the other funds are all accounted for through a common bank account or investment fund. June 30, 1985 cash and investment balance requirements of funds that have common bank accounts and investments and as follows:

General Fund	$$$$,$$$.$$
Special Project Fund	$$$$,$$$.$$
Total	$$$$,$$$.$$

The common cash and investments of the District at June 30, 1985 were as follows:

"A" State Bank*		
Checking Account "#1"	$	($$$,$$$.$$)
Investments	$	$$$,$$$.$$
	$	$$$,$$$.$$

Note 3. *General Fund Advances Due From Other Funds*

As of June 30, 1985, the following fund is obligated to the general fund for previous cash advances:

Community Service Fund	$ $$$.$$

Note 4. *Long-Term Debt (See Long Term Debt Section of the Official Statement.*

Note 5. *Employee Retirement Plan*

The School District substantially provides all of its contracted teachers and other professional staff with a retirement plan funded through contributions to the _______________ Retirement System. The retirement plan requires an employee contribution equal to — % of the teaching salary plus an annually determined employer contribution rate (set at — % for the year ended 6-30-85). The total required contributions to the retirement system for the year ended June 30, 1985, were as follows:

School District's Share	$ $$$,$$$.$$

The annual employer's contribution rate, which is actualized by the State of __________, provides for funding of prior service costs, including interest, over a period of — years. Information concerning the amount, if any, of the excess of the actuated computed value of vested benefits over the total available in the pension fund is not maintained on a district by district basis.

Cash and Investments

A detailed account or an aggregated statement should reflect the cash and investments on hand. While often reflected in the prospectus as "Cash on Hand," the reality of sound school business management practices dictates that all "Cash on Hand" is in various investments as discussed in the chapter on cash management and banking. An example of an aggregated statement follows:

Cash and Investments—For all funds of the District
as of June 30, 1985 were $ __________

A detailed finite statement is illustrated:

CASH AND INVESTMENTS — June 30, 1985

General Fund	$$,$$$,$$$
Board of Education	$$$,$$$
Federal Revenue Sharing	$$$,$$$
Library	$$$
City-County Health	$,$$$
Sinking Fund	$$$,$$$
Central Equipment & Stores	$$$
Combined Capital Improvements	$$$
Miscellaneous	$$$
	$,$$$,$$$

Future Financing

The investment community is obviously interested in ascertaining if additional bonds are anticipated within the near future by the district or through an overlapping debt structure. Such a statement might read:

> FUTURE FINANCING
>
> None of the municipalities within the District anticipate the issuance of bonds/notes within the next six months for capital improvements.

Pending Litigation

The prospectus normally specifies whether there is any pending legal action which may have an effect on the sale, issuance or ability of the district to repay the obligation. It is important that bond counsel draft this section. A statement written by bond counsel is illustrated:

> There is no controversy or litigation of any nature now pending or threatened restraining or enjoining the issuance, sale, execution or delivery of the bonds, or in any way contesting or affecting the validity of the bonds. There are no suits for damages currently pending against the District that are significant or that are not fully covered by liability insurance. Neither the District nor its attorney anticipate any litigation that would contain a significant de-

> mand for financial relief against the District or its properties that would not be fully covered by liability insurance.

A somewhat simpler statement bond counsel might draft in some states is illustrated:

> There is no litigation now pending or, to the knowledge of District officials, threatened that questions the validity of the Bonds or of any proceedings of the District taken with respect to the issuance or sale thereof.

In the event there is anticipated or pending litigation, bond counsel must reflect the nature of the circumstances surrounding the possibility. It must again be stressed to the student of school business management that such statements be drafted by legal counsel.

Certification Statement

Often a certification statement is expected by the investment community. The certification statement is an assurance by the school district that all the information contained in the prospectus is accurate. An example of a certification statement commonly found in a prospectus follows:

> CERTIFICATION
>
> The District will furnish, upon request, a statement to the effect that the Official Statement to the best of their knowledge and belief, as of the date of sale and the date of delivery of the bonds, is true and correct in all material respects, and does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

General Information

General information is included of an economic and demographic nature. The smaller the district the more acute the need for this type of information. There are few absolutes in what must be included or how it is organized and displayed. Often pictures are included of the present educational facilities, major industrial employers, banks and so on. Underscoring the need for this type of data, Moody's Investors Services explains:

> There is a large, comprehensive body of data available to an analyst on economic resources industry and employment, and population characteristics for the states, the counties, the cities of over 10,000 population. More limited data are available for places as small as 2,500 population. For districts that cut across boundaries, these standard data are lacking, and these kinds of districts include the most numerous single class of borrowers—school districts.[19]

General information for a relatively small community should be as thorough and complete as reasonably possible. This section would normally include such things as:

- Geographic and demographic information.
- Number, type, age, capacity and enrollments of the present educational facilities, etc.

- Prior enrollment patterns by grades.
- Number and classifications of personnel.
- Private school enrollments and status.
- University, college and technical schools within the community.
- Agricultural information (if the community is agricultural), including such items as size, cropland values, market value of agricultural products sold, and data available from the U.S. Census of Agriculture.
- Information on the form of city government and municipal services.
- The unemployment rate available from the state.
- Amount and value of building permits for the past few years.
- A listing of the largest property taxpayers within the district.
- An overview of the financial institutions of the district.

Sale of Issue

The actual sale of the issue is usually held at a time and place printed in the official prospectus. It is strongly suggested that the opening of the bid not take place at the same time as the awarding of the bid. The actual award should be held at a later date. The following outline is offered:

a) Schedule the actual bid opening for the day of a board meeting. At the time of the actual opening have all parties present to witness the opening and reading of the sealed bids.

b) Analysis of the bids would then occur over the next several hours (days). If multiple interest rates are received, they must be examined carefully.

c) The final awarding of the bids would then occur at the board meeting pursuant to the appropriate statutory guidelines and based on the analysis and advice of financial counsel.

The bids must always be sealed, delivered in an appropriate manner and received before the scheduled opening. The good faith check of the winning bid is deposited to the school district accounts. The uncashed good faith checks of the other bidders are normally returned via registered mail. It is customary for the winning bidder to be informed immediately by telephone and by certified mail.

In determining the best bid, a determination of the lowest cost to the district will be the lowest bid. In a single rate bid, the lowest rate determines the best bid, i.e., the total cost minus all premiums. In a split rate bid, the financial adviser or school business administrator must determine the net dollar cost to the district, i.e., the total cost minus all premiums. If the total cost is the same for the bids, the higher premium will determine the lowest net cost. It is important to remember that the total net cost must be determined by subtracting any premium charge.

Bond Registration

Presently, all bonds must be registered. Generally, municipal bonds are exempt from federal and state taxes but they are not exempt from estate taxes. The previous system of bearer bonds was disallowed under federal law effective July 1, 1983, when the federal government mandated the registered format.[20]

Investment of the Proceeds

Most school districts when undertaking sizeable capital outlay projects have various amounts of excess moneys for different periods of time. These surplus funds must be invested pursuant to state statutes to maximize the return of the project. The investment of the cash flow, or more properly stated the reinvestment of the issue, can be a complex task.

The amount of the full issue will ultimately be spent by the school district. Although the total amount may be obligated to the project, portions are only payable on certain dates over the life of the project.

Great care and diligence should be exercised with the architectural/construction management team to set forth a viable construction payment schedule. With a construction payment schedule, the school district can then set forth an aggressive investment schedule for higher rates. The use of such moneys may be dictated by statute in some states, and the statutes must be examined closely by legal and financial counsel. The reinvestment schedule must be fully examined by legal counsel in order to meet all applicable Internal Revenue Service rules so they may not be considered arbitrage bonds.

Advanced Refunding

Where permissible, school districts may engage in advanced refunding to lower the total cost to the taxpayers. Advanced refunding is the issuance of a new bond issue to pay off the old bond one. If interest rates have declined, the new issue is less expensive and, therefore, sold at the lower rates.

It is important to note that the bond markets can fluctuate for several reasons. Generally, advance refunding is used when the outstanding bond has not reached the first call date or is not callable under the conditions of the sale. The proceeds of the new issue are invested in the highest return investments (all fully insured) with the maturities due before the payment schedule due date. The investment is normally in an escrow account established exclusively for the purpose of establishing the purchase of refunding bonds for the purchase of U.S. Treasury Securities. The escrow account then pays the refunded bonds to the maturity or the call date. Normally, a 1 to 1.5 percent difference in interest rates is necessary for such activity to be cost effective.

Most states allow for such activity while regulating the procedures and terms of such sales. The refunding process is restricted as to the investment yield based on the Treasury Department's arbitrage rules. Generally, the new issue will have a lower net interest cost due to a lower bond market/higher reinvestment schedule. It is important to note that the old issue is fully secured by the new issue's escrow investments.

Final interpretation of the 1986 tax code revisions regarding arbitrage had not yet been completed when this chapter was written.

Bond Insurance

Insurance is available for municipalities that purchase coverage to all bidders as guaranteed obligations. The largest such insurer, the Municipal Bond Insurance Association (MBIA), and the Financial Guaranty Insurance Company (FGIC), offer municipalities an AAA rating from Standard and Poor's and Aaa from Moody's. MBIA coverage is available to new issues for those issues that qualify. MBIA is owned by five large insurance firms. The municipality may purchase the coverage as a part of its offering, or it can qualify its issue as rated so as to have the bidder pay for the coverage. In theory, the purchase of insurance is cost effective because the municipality pays less interest due to its higher rating as a result of the no risk element to investors.

Summary

The area of capital outlay and bonding for educational facilities is an extremely broad and complex topic. Careful planning must be undertaken to ensure the efficient use of the facilities and taxpayers' moneys. Financial and legal counsel must be secured at the outset of the planning.

The school business administrator is the person in most districts who represents the district and the board of education to the investment community. The school business administrator should be prepared to gather and display basic information on the school district. Moody's has offered the following checklist for issuing ratings:

PRIMARY DOCUMENTS

1. Official statement or prospectus.
2. Notice of sale.
3. Annual reports or audits for the last three years.
4. Most recent budget for operations.
5. Capital budget or planning document.
6. Copy of local charter or document which describes governmental structure.
7. Ten-year enrollment trend and projection, school plant description, including facilities and capacity.
8. Legal opinion.

SUPPORT DOCUMENTS (FOR INFORMATION NOT CONTAINED IN ANY OF THE AFOREMENTIONED DOCUMENTS)

- Assessed valuation for the last five years.
- Equalized ratios for the last five years.
- List of ten largest taxpayers, their assessed valuation and type of business.
- Current population and latest census estimates.
- Tax rates and levies for the last five years, current and total collections, tax rates of overlapping jurisdictions.

- Tax assessment and collection procedures, including due dates and penalty rates.
- Tax and levy limitations.
- Debt or interest rate limits.
- Statement of direct debt and debt of overlapping debt issuers, including allocable share.
- Principal and interest payments of outstanding debt, each year by year, bonds segregated by security.
- Future borrowing plans.
- Number of building permits over the last five years, plus the dollar amount.
- Number of governmental employees and whether unionized and contract status.
- Statement regarding status of employee pension funds, latest actuarial study, if available.
- Local and area unemployment rate.
- List of ten major employers, number of employees and type of business.
- Area of the issuer (in square miles) and percentage of land that is developed.[21]

NOTES

1. Portions of this introduction has been adapted from M.D. Alexander and R.C. Wood, "The Financing of Educational Facilities," *Planning and Changing*, 14 (Winter, 1983), 201-213.

2. G.D. Webber, *State Equalization of Capital Outlays for Public School Buildings* (Los Angeles: University of Southern California Press, 1941), 5.

3. W.M. Barr and K.F. Jordan, "Financing Public Elementary and Secondary School Facilities," *Planning to Finance Education*, ed. R.L. Johns, K. Alexander and K.F. Jordan (Gainesville, FL: National Education Finance Project, 1971), 240-241.

4. R.L. Johns and E.L. Morphet, *The Economics and Financing of Education*, 3d ed. (Englewood Cliffs, NJ: Prentice-Hall, 1975), 279.

5. W.M. Barr, *Financing Public Elementary and Secondary School Facilities in the United States* (Bloomington, IN: Bureau of Surveys and Administrative Studies, 1970), 141.

6. Barr, 25.

7. Barr, 143-144.

8. Estimate based on data appearing in *State Public School Finance Programs, 1978-79*, ed. E.O. Tron (Washington, D.C.: U.S. Office of Education, 1980).

9. Estimate based on data appearing in *Finances of Public School Systems in 1979-80* (Washington, D.C.: U.S. Bureau of Census, CF-80, No.10).

10. Barr, 241.

11. The Composite Construction Cost Index reflects the Cost of Building Index and the previously issued Cost of Materials Index.

12. Based on major general obligation issues appearing in the *Bond Directory* during 1981 for twenty year issues.

13. W.R. Wilkerson, *Problems and Issues of Fiscal Neutrality in Financing School Construction* (Washington, D.C.: Office of Health Education and Welfare, Bureau of Elementary and Secondary Education, 1973), 9.

14. *Understanding Bonds and Preferred Stocks* (New York: New York Stock Exchange, Inc. 1978).

15. *Pitfalls In Issuing Municipal Bonds* (New York: Moody's Investors Service, Inc.), 24.

16. Adapted from "Public Finance and Management," (Minneapolis: Evenson-Dodge, Inc.), 5.

17. Ibid, 7.

18. S.B. Tidwell, *Financial and Managaerial Accounting for Elementary and Secondary School Systems,* 3d ed., (Reston,VA:Association of School Business Officials, 1985).

19. *Pitfalls in Issuing Municipal Bonds*, 36.

20. For a complete discussion of the requirements of registration see, J.E. Petersen and M.P. Buckley, *A Guide to Registered Municipal Securities* (Chicago: Municipal Finance Officers Association, 1983).

21. *Moody's Bond Record, Special Edition* "School District Ratings," (Moody's Investors Service, October, 1984).

22
School Closings

R. Craig Wood and Wayne M. Worner

School business administrators will face problems brought about by declining enrollments throughout the next decade. The problems will be exacerbated by the increasing reluctance of the public to continue funding education at current levels. Despite a decline in the number of students, the aggregate costs for education have not declined. While the aspiring school business administrator will find that much has been written on costs and the economics of scale related to the growth of public education, much less is available that describes planning activities for shrinkage or retrenchment.

Throughout the 1980s and perhaps beyond, public schools as a whole will serve a declining population. These demographic trends will bring about different, and in many circumstances, more complex problems for school business administrators. Over the next decade, greater numbers of students will be identified as being handicapped with special educational needs. Projections also indicate that a higher percentage of the overall school age population will be economically deprived, non-English speaking students. In addition to higher costs associated with the need for specialized services are the traditional cost increases over which school districts have little control. These include higher expenditures in the areas of utilities, energy consumption, construction, personnel (due to staff's moving higher on the salary schedule), salary and benefit demands fueled by inflation, additional new and expensive mandated programs and services with little or no funding provided and more intensive and expensive special educational programs. Combined with declining tax bases, deteriorating public support for public education and a society in which fewer than one fourth of the taxpaying adults have children enrolled in the public elementary and secondary schools, the challenges will be awesome.

Historically, the training of school business administrators has focused predominately on the top-side, i.e., the problems of expansion with growing pupil populations. In the ten year period from 1985-95, the typical school district will face a different set of problems. The skills needed by the school business administrator in the next decade will be those which deal with the down-side of management, i.e. declining numbers of students, increased mandates and regulation and declining resources.

Some claim that the focus on managing decline is misplaced and too negative rather, they suggest that managing and directing change ought to be the focus. "To cope effectively with decline, we have to think of it other than as shrinkage and empty schools. We must view it as a neutral, descriptive term used to indicate a direction of change."[1]

Whether the perspective is managing change, managing decline and retrenchment or simply cutting costs, certain activities and functions must be carried on within the school district to facilitate sound management. Precisely who will be responsible for these activities is a function of the size and administrative configuration of the school district, the political significance of the decisions and other related factors. Suffice it to say, the administrator responsible for business and fiscal affairs in any school district will play a major role in all matters associated with declining enrollment. That role may be directing, coordinating or supporting, but it will be significant.

Projecting Enrollment

Examination of current enrollment data and future projections reveals only a steady decline. Table 22:1 illustrates the decline during the rest of this decade, and Table 22:2 illustrates the history and projections for enrollments of the school-aged population in the United States through 1986.

Table 22:1 Population by Age Cohorts
1970, 1979, 1985 and 1989 (Numbers in Thousands)

	Population				Percent Distribution			
Age Cohort	1970	1979	1985	1989	1970	1979	1985	1989
Under 5 yrs.	17,163	15,649	18,803	19,431	8.4	7.1	8.1	8.1
5-17 yrs.	52,229	46,923	43,490	44,712	25.7	21.3	18.7	18.5
18-44 yrs.	72,815	89,985	99,089	102,279	35.7	40.6	42.5	42.4
45-64 yrs.	41,857	43,909	44,194	45,686	20.5	19.9	19.0	18.9
65 & older	19,972	24,584	27,305	29,356	9.8	11.2	11.7	12.1
Total	204,335	220,584	232,880	241,463				

Sources: U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 870, "Estimates of the Population of the United States by Age, Race, and Sex, 1976 to 1979," Washington, D.C.: U.S. Government Printing Office, 1980, for 1970 and 1979 figures; U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 704, "Populations of the Population of the U.S., 1977 to 2050," Washington, D.C.: U.S. Government Printing Office, 1977, p. 45 for 1985 figures and p. 49 for 1989 figures.

Table 22:2 Actual and Projected School Age (5-17) Enrollments

Reported	Public School Enrollment	Projected	Public School Enrollment
1970	45,909,000	1979	42,600,000
1971	46,081,000	1980	41,094,000
1972	45,744,000	1981	40,387,000
1973	45,429,000	1982	39,009,000
1974	45,053,000	1983	39,528,000
1975	44,791,000	1984	39,546,000
1976	44,335,000	1985	39,794,000
1977	43,687,000	1986	40,244,000
1978	42,840,000		

Sources: Projections of Educational Statistics to 1986-87, National Center for Education Statistics, 1970-79, and Education in the United States: Statistical Highlights through 1979-80.

The tables indicate that while the decline will not be distributed evenly across the states or within a state, it is nevertheless a reality. Public school enrollments by state over the past decade have varied widely. States in the sunbelt generally have shown either growth or small decline while those in the Midwest and Northeast have declined significantly as reflected in Table 22:3.

Table 22:3 Public School Enrollment Changes 1971-1979

Increased	Decreased 0%-5%	Decreased 5%-9.9%	Decreased 10%-14%	Decreased 15% or more
Alaska	Arkansas	Alabama	California	Connecticut
Arizona	Colorado	Hawaii	Illinois	Delaware
Florida	Georgia	Kentucky	Indiana	D.C.
Idaho	New Mexico	Louisiana	Massachusetts	Iowa
Nevada	North Carolina	Maine	Minnesota	Kansas
New Hampshire	Oregon	Mississippi	Missouri	Maryland
Texas	South Carolina	Oklahoma	Montana	Michigan
Utah	Tennessee	Vermont	Nebraska	New York
Wyoming	Virginia	Washington	New Jersey	North Dakota
	West Virginia		Ohio	Pennsylvania
			Wisconsin	Rhode Island
				South Dakota

Source: Adapted from — *Declining Enrollment - Closing Schools*, AASA Critical Issues Report, American Associ tion of School Administrators, Arlington, Virginia 1981, p. 12.

The school business administrator is obviously most concerned with enrollme fluctuations within a single school district. The task is to predict and analyze th impact of the projected change in enrollment on local school operations. To do s the planner must confront two major demographic questions, how many childre will be born and where will they live?

A great amount of information has been published that forecasts future popul tion trends in our society. This information is used by school planners througho the nation. For the school business administrator responsible for planning, a important concern is forecasting with a high degree of accuracy future enrollme in the local district. The key is to monitor all available data. Many school distric have been disappointed to learn that enrollment projections are inaccurate beyond few years. Thus, the school business administrator should strive for accuracy developing population projections. Whenever value judgments are necessary, conservative approach is recommended. Future enrollment projections are gene ally made with the assumption that current economic and sociological conditio within the school district will not change during the life of the data. This bas assumption must be reexamined on a periodic basis.[2]

Clearly, future economic and social events will influence overall school enrol ment. The perceived quality of the neighborhood's public schools, the availabili and price of energy and gasoline, the price of housing and building sites, zoni restrictions, factory openings and closings, as well as the perceived quality of th local school district will all affect school enrollment. It should be noted also that a the variables are not reflected in any projections. By design, data concerning hou ing permits are not used because of their volatile nature and their inherent unrel ability as an enrollment correlate. All projections must be based on data reason bly applicable to a local school district.

Cohort Survival Technique

In making enrollment projections for a local school district, a procedure know as the cohort survival technique is most commonly used. This procedure uses pa and current enrollment data to determine the percentage of students who advanc to succeeding grades. Estimates of kindergarten enrollments are based on live birth data. Ratios for projections are calculated to determine similar percentages of advancement. Enrollment estimates are based on actual students as opposed to estimates based on historical trends.

Table 22:4 presents a projection of kindergarten and first grade enrollments based on live births. Six years of data (1970-75) are illustrated to calculate kindergarten ratios that are then applied to reports of live births for years 1976-80. Children born in these years (1976-80) begin enrollment from 1981 through 1985.

Table 22:4 Projection of Kindergarten and First Grade Enrollments Based upon Live Birth and Historical Trend Dates

		Enrollments			
		Kindergarten		First Grade	
Year	N Live Births (Age = 0)	Year	N % of (Age = 5)(LB/Ern)	Year	N % of (Age = 6)(LB/Ern)
1970	728	1975	131 = 17.9%	1976	146 = 20.0%
1971	680	1976	151 = 22.2%	1977	176 = 25.9%
1972	634	1977	125 = 19.7%	1978	137 = 21.6%
1973	631	1978	162 = 25.7%	1979	153 = 24.2%
1974	596	1979	108 = 18.1%	1980	109 = 18.3%
1975	612	1980	120 = 19.6%	1981	135 = 22.0%
			----b		----c
			20.5%		22.0%
		Projected Enrollments[a]			
1976	555	1981	114 (555x.205)	1982	122 (555x.22)
1977	573	1982	117 (573x.205)	1983	126 (573x.22)
1978	563	1983	115 (563x.205)	1984	124 (563x.22)
1979	622	1984	128 (622x.205)	1985	137 (622x.22)
1980	634	1985	130 (634x.205)	1986	140 (634x.22)

a. Estimate

b. 20.5% is average enrollment of 5 year olds in kindergarten compared to live birth data for the six year period.

c. 22% is average enrollment of 6 year olds in first grade compared with live birth data during the six year period.

Table 22:5 reflects an example of the actual enrollments for a school district from a low of 1,792 students in 1970-71 to a high of 2,020 in 1974-75. The table shows a modest decline of pupil enrollment since 1975-76.

Table 22:5 School Districts' Actual Enrollments for 1970/71 - 1980/81

	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
'70-71	0	175	148	174	159	152	168	172	168	132	135	116	93	1792
'71-72	0	167	166	141	170	154	149	174	170	168	135	133	108	1835
'72-73	0	133	155	167	142	172	162	151	174	172	162	130	124	1844
'73-74	113*	139	143	161	178	145	165	166	158	182	174	157	120	2001*
'74-75	107	156	144	139	168	183	151	169	161	150	178	156	158	2020
'75-76	131	127	142	157	135	174	176	160	177	164	150	169	151	2013
'76-77	151	146	126	146	147	138	176	168	163	176	160	138	156	1991
'77-78	125	176	144	131	143	143	130	178	169	161	172	146	129	1947
'78-79	162	137	152	146	139	141	142	130	173	173	167	164	145	1971
'79-80	108	153	135	158	146	135	150	141	133	167	155	148	152	1881
'80-81	120	109	158	137	158	186	134	151	130	127	163	151	141	1865

*Kindergarten program begun in fall, 1973.

Table 22:6, presenting the survival cohort ratios K-12 for the same school district for the years 1976-81, indicates the percent of survival from grade to grade for each year. A mean survival percentage is calculated for each grade.

Table 22:6 Cohort Survival Ratio K-12

Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
1976-77		111.4	99.2	102.8	93.6	102.2	101.1	95.4	101.9	99.4	97.6	92	92.3
1977-78		116.5	98.6	103.9	97.9	97.3	94.2	101.1	100.6	98.8	97.7	91.2	93.5
1978-79		109.6	86.4	101.4	106.1	98.6	99.3	100	97.2	102.4	103.7	95.3	99.3
1979-80		94.4	98.5	103.9	100	97.1	106.4	99.3	102.3	96.5	89.6	88.6	92.7
1980-81		100.9	103.3	101.5	100	127.4	99.3	100.7	92.2	95.5	97.6	97.4	95.3
average % advancement		106.5	97.2	102.7	99.5	104.5	100	99.3	98.8	98.5	97.2	92.9	94.6

Explanation: Kindergarten enrollment 1975-76 (see Table 23:5, column 1) was 131. First grade enrollment in 1976-77 was 146 (column 2). Cohort survival index is computed by dividing the annual enrollment by the previous enrollment or 146/131 = 111.4%. The five year history of K-1 progression is computed similarly to yield indices of 116.5%, 109.6%, 94.8%, and 100.9%. The average cohort survival ratio is then computed and applied to current enrollments to project future enrollments. (See Table 22:7 for application of computed indices in projections.)

Table 22:7 is a ten year enrollment projection of grades K-12 including school years 1981-82 through 1990-91. After examining the table, one should be able to gather the appropriate data and replicate the basic structural form for any given school district. It is important to note that in the sample table, the data projections through 1985-86 will be very accurate since the projections are based on live birth data. The enrollment estimates for years 1986-91 however, represent a combination of cohort survival and trend analysis techniques. As such, reasonable caution must be exercised when recommending action based on these projections, and special care taken to increase the reliability of the data on which the assumptions are based.

Table 22:7 Ten Year K-12 Enrollments Projection 1981-82 to 1990-91

	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
'81-82	114	135	106	162	136	165	186	133	149	128	123	151	143	1831
'82-83	117	122	131	109	161	142	165	185	131	147	124	114	143	1791
'83-84	115	126	119	135	108	168	142	164	183	129	143	115	108	1755
'84-85	128	124	122	122	134	113	168	141	162	180	125	133	109	1761
'85-86	130	137	121	125	121	140	113	167	139	160	175	116	126	1770
'86-87	128	136	133	124	120	126	140	112	165	137	156	163	110	1750
'87-88	128	136	132	137	123	125	126	139	111	163	133	145	154	1752
'88-89	128	136	132	136	136	129	125	125	137	109	158	124	137	1712
'89-90	128	136	132	136	135	142	129	124	124	135	106	147	117	1691
'90-91	128	136	132	136	135	141	142	128	123	122	131	98	139	1691

In analyzing all the data, it is essential that the school business administrator monitor live birth rates in all future years to update the projections for additional years beyond the time for which live birth data exist. Proper utilization of the enrollment projections techniques previously outlined will provide adequate and accurate data for planning in most school districts under most conditions.

When the local school district is altered by major social or economic events, cohort survival techniques must be amended to take into account data from other sources. The installation of a major military facility, opening or closing of a factory or the political merger or annexation of governmental units can create conditions that call for more dynamic projection techniques. Within-district projects for individual schools also call for special data-gathering techniques that are discussed later in the section dealing with the facility utilization and school closing.

With most schools in the country facing declining enrollments, the major concerns impacting school districts are: a) the impact of staffing, and b) facilities utilization.

Declining Enrollment: Impact on Personnel

Personnel costs and associated benefits represent, in many instances, 80 percent or more of local school district expenditures. A school district faced with declining enrollment and pressures to contain or reduce costs must review its policies and procedures related to staffing.

One useful technique and one that may be revealing is to chart the past and present staffing ratios with a local school district. By charting, a sectional display will reflect a given level of efficiency. In theory, the two factors should maintain a parallel relationship, i.e., as the student population declines, so would the overall teacher population. Figure 22:1 illustrates this technique.

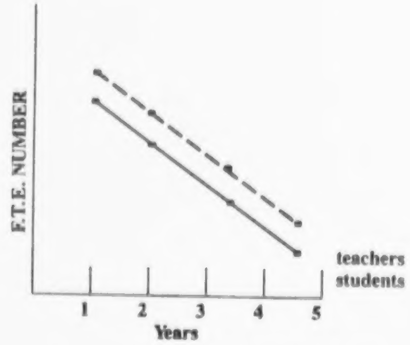

Figure 22:1 **Teacher and Student Population Decline**

In reality, an efficient school district will generally have a one year lag; that is, the employment trend line will correlate with but trail the declining pupil population as illustrated in Figure 22:2:

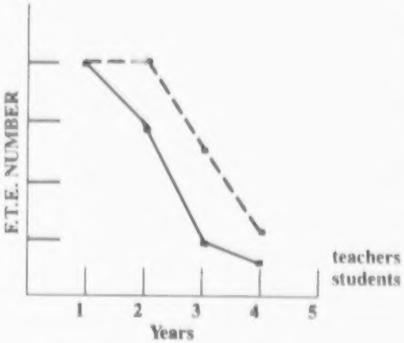

Figure 23:2 Realistic Employment Trend

In examining the plotted data, it can be readily determined if the overall teaching staff is being phased out at the same rate of the overall pupil decline. In Figure 22:2 the greatest lag, hence inefficiency, is in year three. Note that this technique is perhaps applicable only to classroom teachers. For example, it may be inappropriate to plot custodians to pupil decline. Generally, custodians are employed on a per-square-foot basis and the lack, or presence, of pupils has little impact. Obviously, at some point the decline of pupils would impact on custodial personnel through the closing of facilities. Note however, that this discussion is centered on full-time equivalent teachers, excluding special education programs and other mandated programs. If special education were to be included in the analysis, with all other teaching personnel in the district, the data might appear as in Figure 22:3:

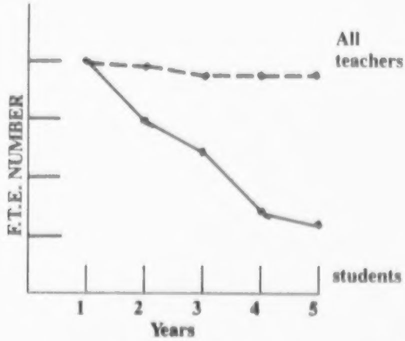

Figure 23:3 Normal Attrition Display Combined Instructional Personnel (Including Special Education)

It is important to separate mandated programs such as special education from the charting procedures. If such programs are included, it would confound any rational relationship between pupil decline and teacher employment. Note in Figure 22:4 that it may be possible (if not likely) to see a support group, in this example, teacher aides, increase dramatically. Due to special staffing requirements, the number of teachers can be expected to increase at a proportionately higher level, when compared with teacher/pupil ratios in the rest of the school system. Given this consideration, it is recommended that special programs' staffing analysis be separated from overall school system analysis.

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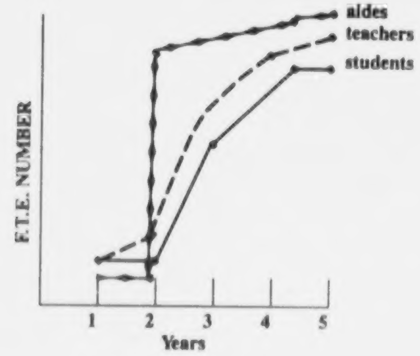

Figure 22:4 Special Program Display

When overlaid, the graphs for teaching personnel (excluding special programs) and special education provide an analysis that would be totally masked were all teachers to be combined in one graph as in Figure 22:5:

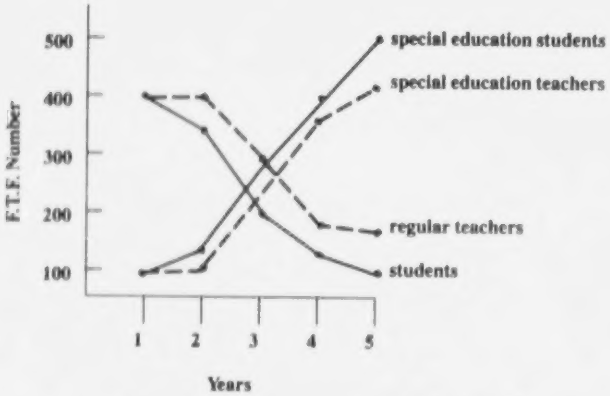

Figure 22:5 Special Program Personnel Within the Overall Staff

While the school business administrator must deal with reduction-in-force, as discussed in another chapter, he or she must also deal with the closing of educational facilities due to declining enrollments. The educational facilities must be used as efficiently as possible. While reduction-in-force and destaffing procedures may generate considerable concern among school district employees and the organizations which represent them, boundary line changes, reassignment of students, transporting students and closing of schools represent actions of a magnitude that can severely impact on the school-community relations in a school district. That these actions might be economical, well conceived, fully supported by the school board and necessary, makes little difference when such actions are tied to tradition, emotion and political considerations.

After over a decade of dealing with problems related to shrinkage, educators can hardly claim that this is a new concern. The focus in the rest of this chapter is on ways that the school business administrator can provide leadership and direction in the resolution of problems relating to underutilized facilities and excess space.

The Growth of Vacant School Buildings

Total public and non-public school enrollment in the United States declined significantly over the past decade from 51.3 million students in 1970 to 45.8 million students in 1980. The decline during that period can be attributed to reduced enrollment in elementary schools. High school enrollment (grades 9-12) in 1980 was actually higher than in 1970 (14.8 million compared to 14.6 million) but it too had begun to dip from a peak enrollment of over 15.7 million students in 1976.

In 1980, demographers were estimating that elementary school enrollments would bottom out in 1984 at 30 million students with enrollment turning upward slightly later in the decade. For high school enrollments, however, the decline had just begun. Moreover, since high school enrollments in to 1990s are based on students already born, they are much more likely to be accurate over a ten-year period than are elementary enrollment projections which depend, in part, on estimated live births. The news for high school enrollments through the 1980s is one of decline. Current enrollments of 14.8 million high school students are expected to drop to under 12 million by 1990. The number of high school graduates, which reached nearly 3 million in the late 1970s, will decline by approximately 25 percent by the end of the 1980s with no indication of an upturn.[1]

As a result of these declines, many schools have been closed over the past decade. A survey conducted by the United States General Accounting Office (GAO) included twenty three states which compiled data regarding vacant schools and indicated that there were 2,493 vacant schools in nineteen of these states at the beginning of the 1978-79 school year. Only four of the states responding to the survey reported no vacant school buildings. Seventeen states projected additional closing of 1,220 schools during the period from 1979 through 1984. This represented a closing or project closing of approximately five percent of the nearly 85,000 schools in the twenty three states surveyed. Clearly, a five percent closing rate in the face of a 15 percent student enrollment decline during the same period leads to a recognition that school closings do not occur automatically.

While examination of national trends and data is an interesting exercise, it is useful only insofar as it helps to point out that declining enrollment is not a localized phenomenon. Obviously such data are of only limited value in addressing local school concerns. As indicated in Figure 22:3, variations in enrollment occur from state to state, with some states actually increasing in the number of students served. Clearly conditions other than live birth rate, fertility indices and cohort survival assumptions account for such a wide range of differences. It should be just as obvious that within-state differences are subject to even greater fluctuations due to a variety of circumstances and conditions that are described later.

Table 22:2 Public and Private U.S. enrollments, with alternative projections: 1970-1990
(In thousands)

Year (fall)	Total enrollment			Institutions of higher education		Regular elementary and secondary school				Independent nursery school and kindergartens	
						Grades K-8		Grades 9-12			
	Total	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
1970	61,380	52,758	8,622	6,428	2,153	32,577	4,052	13,332	1,311	421	1,016
1971	61,863	53,409	8,454	6,804	2,144	32,265	3,900	13,816	1,300	524	1,110
1972	61,650	53,364	8,286	7,071	2,144	31,831	3,700	13,913	1,300	549	1,142
1973	61,531	53,193	8,338	7,420	2,183	31,353	3,700	14.077	1,300	343	1,155
1974	62,014	53,407	8,607	7,989	2,235	30,921	3,700	14,132	1,300	365	1,372
1975	62,813	54,106	8,707	8,835	2,350	30,487	3,700	14,304	1,300	480	1,357
1976	62,226	53,469	8,757	8,653	2,359	30,006	3,825	14,311	1,342	499	1,231
1977	61,644	52,860	8,805	8,847	2,437	29,336	3,797	14,240	1,343	437	1,228
1978	60,673	51,836	8,837	8,784	2,475	28,328	3,732	14,223	1,353	501	1,277
1979	60,106	51,171	8,935	9,037	2,533	27,885	3,700	13,694	1,400	555	1,302
1980	60,258	51,084	9,174	9,457	2,640	27,678	3,700	13,317	1,400	632	1,434
Intermediate alternative projections											
1981	59,747	50,615	9,132	9,760	2,682	27,356	3,600	12,833	1,400	666	1,450
1982	59,388	50,146	9,242	9,906	2,714	27,161	3,600	12,383	1,400	696	1,528
1983	59,022	49,735	9,287	9,839	2,674	27,023	3,600	12,142	1,400	731	1,613
1984	58,877	49,545	9,332	9,730	2,621	26,905	3,600	12,134	1,400	776	1,711
1985	58,931	49,585	9,346	9,612	2,562	26,951	3,600	12,215	1,400	807	1,784
1986	59,365	49,879	9,486	9,584	2,536	27,359	3,700	12,097	1,400	839	1,850
1987	59,883	50,252	9,631	9,576	2,517	27,987	3,800	11,817	1,400	872	1,914
1988	60,275	50,634	9,641	9,591	2,507	28,722	3,800	11,436	1,400	885	1,934
1989	60,907	51,141	9,766	9,636	2,503	29,447	3,900	11,158	1,400	900	1,963
1990	61,699	51,806	9,893	9,616	2,485	30,244	4,000	11,023	1,400	923	2,008
Low alternative projections											
1981	58,789	49,958	8,831	9,265	2,515	27,356	3,600	12,833	1,400	504	1,316
1982	58,208	49,341	8,867	9,279	2,500	27,161	3,600	12,383	1,400	518	1,367
1983	57,862	48,954	8,908	9,245	2,474	27,023	3,600	12,142	1,400	544	1,434
1984	57,701	48,770	8,931	9,163	2,430	26,905	3,600	12,134	1,400	568	1,501
1985	57,756	48,819	8,937	9,068	2,384	26,951	3,600	12,215	1,400	585	1,553
1986	58,048	49,022	9,026	8,970	2,335	27,359	3,700	12,097	1,400	596	1,591
1987	58,440	49,328	9,112	8,920	2,301	27,987	3,800	11,817	1,400	604	1,611
1988	58,769	49,660	9,109	8,890	2,280	28,722	3,800	11,436	1,400	612	1,629
1989	59,327	50,123	9,204	8,903	2,263	29,447	3,900	11,158	1,400	615	1,641
1990	60,030	50,741	9,289	88,58	2,241	30,244	4,000	11,023	1,400	616	1,648
High alternative projections											
1981	60,106	50,899	9,207	10,025	2,728	27,356	3,600	12,833	1,400	685	1,479
1982	59,992	50,616	9,376	10,339	2,789	27,161	3,600	12,383	1,400	733	1,587
1983	60,188	50,604	9,584	10,633	2,844	27,023	3,600	12,142	1,400	806	1,740
1984	60,554	50,788	9,766	10,869	2,876	26,905	3,600	12,134	1,400	880	1,890
1985	61,141	51,214	9,927	11,096	2,903	26,951	3,600	12,215	1,400	952	2,024
1986	61,971	51,788	10,183	11,312	2,927	27,359	3,700	12,097	1,400	1,020	2,156
1987	62,839	52,425	10,414	11,543	2,954	27,987	3,800	11,817	1,400	1,078	2,260
1988	63,627	53,088	10,539	11,802	2,994	28,722	3,800	11,436	1,400	1,128	2,345
1989	64,686	53,893	10,793	12,103	3,040	29,447	3,900	11,158	1,400	1,185	2,453
1990	65,846	54,836	11,010	12,336	3,073	30,244	4,000	11,023	1,400	1,233	2,537

NOTE: Because of rounding, details may not add to totals.

The Education Almanac (1984).
Goodman, L.V. ed.

Declining Enrollments and Local School Facility Utilization

Major changes in school enrollments at the local district level have always been cause for a flurry of activity. During periods of growth, local school districts sought creative ways to expand the capacity of school facilities while construction lagged two to five years behind the appearance of the students. Various solutions were found to deal with excess student numbers including split-shift scheduling, relocatable (temporary) classroom units, rented church facilities and various year-round school options. In the final analysis, however, the last solution for most school systems was the construction of new educational facilities. The reverse side of the growth curve calls for equally creative interim and long-term planning. Unfortunately, however, the set of variables that exist in any community is sufficiently unique to render generalized models for dealing with decline inappropriate.

What are the factors then, that make a difference in planning for declining enrollment in a particular school district? How can school districts plan effectively to assure the highest quality educational programs given the resources available? How and when does closing a school become necessary? What is the best way to close a school? What can or should be done with unused facilities? What role does the school business administrator play in this entire process? The answers are difficult and complex, and suggestions and guidelines are presented in the following sections.

Factors in Planning for Declining Enrollment

One of the most obvious factors that helps determine whether school systems should engage in serious planning for enrollment decline is the status of the school system's enrollment. Procedures for accurately projecting enrollment are discussed earlier in this chapter. Special attention should be paid, however, to other factors that might render standard projection techniques inaccurate. Major housing developments, trailer court openings or closings, military or industrial impact, zoning changes, in and out migration and the opening or closing of private schools can dramatically influence projections for individual schools or for the school district as a whole. Care must also be exercised to make sure that changes in state or local policies regarding school entry age or grade to grade promotion (e.g., competency examinations) are accounted for in the analysis and use of cohort survival projections.

The size and number of schools in a local school district are also factors which shape the developmental planning strategies in any school district as well as the options that may be possible at the end of the process. With nearly seventy-five percent of the nation's school districts served by a single high school, the elimination of the high school (unless school districts are being consolidated or merged) is an unlikely possibility for such districts. School districts that serve small numbers of students at remote locations cannot seriously consider merging of students from two or more schools. Two considerations that are important in early planning for optimal use of school facilities are: 1) the accuracy of enrollment data, and 2) size and nature of the school district.

Enrollment Information

Glen Earthman has described several techniques that may predict enrollments with high degrees of accuracy. Among those he suggests:

1. Regression models that take into account variables associated with enrollment changes themselves.
2. Geo-referenced models that use land saturation and land use projections.
3. Computer based, geo-referenced management information system models that produce student enrollment projections as well as other reports.
4. High altitude infrared photography coupled with land use, land use classifications and identification of population centers to identify growth trends.[4]

While most of these techniques were developed for analyzing growth in larger school districts serving metropolitan areas, they do have potential application for all school districts. They depend on the use of computers that can complete the mathematical computations using various assumptions. School business administrators should become aware of the advanced technology available that can confirm or improve the accuracy of local projections. Generally, projections that are consistently within two percent of the actual enrollments are considered excellent. When estimates vary from actual enrollment by as much as five percent, procedures should be seriously reviewed for their adequacy and appropriateness.

Just as there are great variations in enrollment from state to state and district to district, the effects of declining enrollment are not felt evenly across schools within a school district. As cities grow older, there is a movement of students from the center of the city to the suburbs. This is generally true in medium sized communities as well as urban areas. Some schools are crowded while others are not. Generally, boundary line changes which are usually employed in an attempt to balance enrollments provide only temporary relief to the problem of declining enrollment of the magnitude seen in most school districts.

Size and Nature of School District

Large and small districts alike face problems related to declining enrollment. In general, larger districts have greater flexibility and options to choose in an effort to retain program quality while reducing costs.

The larger school district may be faced with reduction of elective offerings in certain areas, consolidating school enrollments or reduction of highly specialized services in a first round of cuts, whereas the small school system may be faced with the elimination of an entire set of offerings at the high school (in the case of a one-teacher department). The following examples illustrate the relative magnitude of the program.

EXAMPLE 1—The enrollment of Midtown High School will drop from 2,100 students to 1,500 students over the period from 1982-86. The school board has directed a planned staff reduction of twenty faculty members from its current 103 staffing positions.

The enrollment decline in the eighty-four sections of English offered will reduce average class size from twenty five to just over eighteen. By returning class size to twenty five, only sixty sections of English will be required, a savings of twenty-four sections or 4.8 faculty positions. By effecting similar adjustments to retain class size at 1982 levels, a comparable number of sections (and positions) can be eliminated in social studies, science and mathematics with limited reduction in elective offerings or special courses offered in those departments. Similarly other departments such as art, foreign language and business education have four or more faculty assigned, leading to a planned reduction in staffing without dramatically reducing the variety or quality of offerings available at the school.

EXAMPLE 2—The enrollment at Rural Springs will drop from 210 students to 150 students during the same period. The school board has directed that the staff of fourteen teachers be reduced by two over the four-year period. The choices available to the superintendent are not simple. Elimination of one English teacher results in loss of library services, foreign language or electives in drama and journalism as well since the two English teachers also provide additional services or staff elective offerings through their multiple certification. The same choices exist in science, mathematics and social studies. Since the school has but two sections of each class (thirty five to sixty students per grade level), no economies are realized by merging of sections. The other six faculty in the school are single specialists, the only faculty member assigned to their respective departments (music, vocational agriculture, physical education, counselor/home economics, business education, industrial arts) whose loss would represent a significant lessening of the program offerings available in this small (but not unusual) high school.

Discussion. The dilemma and impact of the solution on the smaller school is immediately evident. At the outset, cost per pupil in the smaller school was higher and offerings more restricted than in the larger high school. While reductions in staff undoubtedly would affect the quality of programs at both schools, the comparable percentage reduction in staff would fall more heavily on the smaller school.

Similar problems exist in effecting the economics related to the use of facilities. The larger school system, serving a fairly good-sized community, may well consider consolidating school facilities, phasing out buildings and moving students a short distance to other underutilized facilities. Many small school districts (especially those in rural areas) have all their students in one building. The options for dealing with declining enrollment simply do not include school closings. The location of elementary schools in rural areas likewise restricts the options available to the small district which, due to increasing transportation costs, simply cannot redistribute students for economic reasons.

These factors then weigh heavily in the determination of what choices are available. Sometimes the options are severely restricted and bolder measures such as reorganization, shared services and partial leasing of unused facilities may need to be considered.

Planning for Quality

Once accurate enrollment data are assembled and the unique school system constraints identified, plans must be developed that will address the school district's fiscal concerns within a framework that assures the greatest quality of programs and services possible. The determination of what constitutes quality in any school system is an issue which must involve the public, particularly if the recommendations for cost containment or reduction might include school closings. While the responsibility for planning, formal adoption and implementation of any plan rests with the school board, extensive participation over an extended period of time by all segments of the community has proven to be a prerequisite for success of the plan.

The Educational Facilities Laboratory identified several key points as important in orchestrating the planning process including:

- Allow time—at least a year—from start to accepted plan.
- Provide plenty of opportunity for communicating the facts, the options and the plan to the community, and for getting questions raised and answered and fears allayed.
- Make sure the basic demographic and cost data are reliable, and find simple, clear ways of communicating them.
- Sometimes professional consultants should be retained to develop data, undertake public opinion polls and provide an objective review of alternatives.
- Start the process before the first school is closed, before the community is fragmented.
- Task forces set up to deal with special areas can be useful like legal constraints, operating costs and human services needed in the community and public communications.
- Set realistic but firm dates and schedules.
- Beyond the development of the plan are implementation stages; plan for the orderly completion and retirement of those responsible for the planning and the transfer of responsibilities to those who must make it work.[5]

Although committees will vary in size, structure and mission, it is critical that the members of the committee understand clearly that their role is advisory. Committee members should represent all segments of the community and have sufficient guidelines and resources to permit them to discharge their assignment. Perhaps the most valuable accomplishment of such a committee is the articulation of community priorities and values to be incorporated in any proposal.

The importance of involving a broad segment of the community in developing priorities for any proposed modification of the school district's programs and services cannot be overemphasized. The priorities, once established, become the criteria against which proposed changes are measured. Besides reducing chance as a determiner of the plan's success, it provides a rationale for making choices from among the multitude of options. Whether a community can reach an agreement on what constitutes quality, and thereby can arrive at some consensus as to criteria that should be employed in making decisions about the necessity or advisability of closing facilities, is not certain. What appears to be certain, however, is that citizens are unwilling to review quality considerations if they believe the decision has already been made to close the school their children attend.

Quality and cost are interrelated variables in the decision-making arena that surrounds the operation of schools. Sometimes the level of expenditure is the dependent variable; in other cases it is not. Whenever possible it is clearly preferable to solicit broad-based community involvement in discussions surrounding these two concerns. Where financial constraints dictate decision making which impacts directly on the quality of education, the community should be involved in developing the priorities for allocation of resources. Before discussing which school to close, the thoughtful administrator should determine whether the community priorities include closing any school in spite of the fact that the consequence of operating all schools may mean that programs and services will suffer. Only after determining that a school closing(s) represents a logical and reasonable way of reducing expenditures (as opposed to increasing teacher-pupil ratios or reducing transportation services, electives, extracurricular programs and so on), should the school system seriously consider which facilities should be closed.

School Closing as an Option

If the local school district has more than one facility and the logistics (distance between schools, geographical considerations and so on) do not make in-district consolidation of enrollments impossible, it is likely that school districts with declining enrollments of 10 percent or more over a three to five-year period will at least consider the possibility of reducing the number of facilities operated.

What are the data requirements necessary to evaluate this option? What information will the community, the school board and the professional staff require? Who will generate the information? In what form should it be gathered? What are the educational and financial issues that must be resolved?

The school business administrator will play a major role in this phase of the deliberations. The person who has the responsibility for detailing and analyzing expenditure patterns in the school district has direct access to most, if not all, of the information required to address these questions.

Enrollment Data Reports

One of the first steps is the development of enrollment data reports and projections for each school in the system. This is generally an ongoing subset of the school district's overall enrollment data base. With caution, survival cohort techniques can be employed to project enrollments for each facility in the school district. Given the variations in zoning, development and socio-economic characteristics of any community, it is not difficult to recognize that certain changes that may have a marginal impact on overall school district enrollment can have significant impact on individual school enrollment. Urban redevelopment, low income housing, trailer court development and rezoning for industrial land use can greatly impact the enrollment planning for a single school. Private school openings and closings can, likewise, impact certain areas of a community although their impact tends to be distributed across a wider geographical area and a longer period of time. Special programs or services e.g., full day care for pre-schoolers when the school district provides non-mandatory half time kindergarten, can cause enrollment fluctuations that must be addressed.

Enrollment projection techniques by school attendence areas require constant attention to detail. The building principal and school groups can be excellent sources of information. Mechanisms must be established, however, which assure a conduit for this information as well as provisions for verification of accuracy.

School Board Policy

While data collection and cost analysis are extremely important activities in generating information for review by community advisory committees and the school board, it is preferable to have a thoughtfully developed school board policy which delineates conditions for closing review and action before any study. If educational values and priorities have been stated in advance and if conditions have been specified which will trigger automatic review of closing a school as an option, the school business administrator will find the task more manageable.

Before embarking on a study it is imperative that the school board and administration "(1) review the policies of the district which may have a bearing on closing, and (2) approve the criteria for judging which school or schools will be closed."[6]

Regarding school policies that should be reviewed, several questions that must be addressed by the central office personnel and the school board via policy statements include:

- The use of paid consultants and the limitations of what the consultants are to address. Regardless of any policy the consultants may act only in an advisory capacity as the final decisions are to be made only by the board of education.

- The use of citizen advisory committees and their limitations must be addressed. What is the composition of the committee to be? What policies and guidelines directing such committees need to be addressed in advance of such committees?

- Are the board policies covering citizen input at the board meetings adequate in order to balance the interests of the public and the interests of decision making by the board?

- Policies must be written to address the amount, type and structure of the involvement by classroom teachers, the union, the community and so on.

- Policies must be developed that address beforehand such issues as class size, attendance areas, redistricting, transportation and school and grade reorganization before actual schools are selected for closing.

Data Analysis

Concurrent with a careful review of board policies and thoughtful planning for citizen participation in the decision to close schools or select some other cost reduction strategy, the process for collecting and summarizing appropriate data should be accelerated.

The authors have grouped informational needs that must be addressed into the following categories:

District Finance

State and local revenue projections.

Past expenditure patterns broken down into such areas as personnel, facilities, instructional costs.

Per pupil historical costs and per pupil projections.

Bonded indebtedness for each facility and entire district.

School transportation financial aid.

Student Transportation

Requirements of local and state policies, rules, regulations and statutes.

Student data projections as to new bus routings and schedules based on different scenarios.

Pupil Enrollment Projections

Projections by year, grade and school for five to ten years.

Individual Facility Information

Building capacities and utilization ratios.

Local and state building codes for the health, safety and welfare of pupils.

State rules and regulations for facility standards.

Accreditation standards.

Operating and maintenance costs for the facility as well as on a per pupil and per square foot basis.

Structural condition of the building with projections for capital improvements.

Personnel Projections

Data regarding current assignments and projected scenarios for moving staff.

Special education program projections.

Overall district staffing patterns with different scenario projections.

State statutory guidelines, board policies and contract language regarding the reduction-in-force projections.

Normally expected retirement projections.

Early retirement projections.

Others have addressed such issues as funding, cost-benefit analysis (including capital outlay), heat, electricity, insurance, custodial costs, geographic location, academic excellence, capacity/enrollment, facility condition and re-cycle ability as key factors in determining the feasibility of closing a facility.[7]

When school closings become necessary, it is not the same as when school closings are possible. It is the responsibility of the school business administrator to prepare the data on which rational and informed decisions can be made. Additionally, he or she has the responsibility to facilitate the decision-making process selected by the school board. Regardless of the final decision, the school business administrator should be prepared to make recommendations and take whatever actions necessary to insure the most effective utilization of available resources given the policy decision of the school board.

How To Close a School

The sections which precede this have attempted to suggest three critical ingredients to the process of school closings: planning, information and participation.

Under optimal conditions the school district will have involved the community in the important process of evaluating community needs and setting priorities for making decisions about the expenditure of scarce resources. Through careful planning, these decisions include: needs assessment, examination of options and alternatives, priority setting and decision-making recommendations to the school board. Decisions should be based on appropriate, adequate and accurate information provided to the community by school district personnel.

When a school board has made a decision to close one or more schools and has in hand the criteria for determining which schools (size, cost benefit and a variety of factors consistent with the expressed priorities of the community advisory committee), actions must be taken to carry out the plan. It is recommended that the board develop a plan consistent with the guidelines of the task force or committee. The school board should announce its plan and schedule public hearings that permit opponents a chance to be heard and to vent their opposition and hostility.

Every attempt should be made to generate support from other non-involved groups, especially members of the advisory committee, to confirm that the action plan prepared by the board is consistent with the guidelines developed by the committee. Use of outside consultants at this point may help to deflect some of the animosity that is bound to be present. Taxpayer groups and others supporting cost containment should be involved.

The role of the school business administrator in this activity will be to present data as candidly as possible without entering into policy discussions. Good management dictates that once the board of education has reached consensus and taken board action, the administration should implement the board's directive in a timely fashion.

Disposition of the faculty, which will already have been reviewed as a part of the analysis of all facilities, should be confirmed and transfer of personnel, equipment and materials planned and executed. Finally, the facility should be vacated and secured for further use. It is at this stage that the school business administrator carries the primary responsibility for execution. Until this time, his or her role has been one of data gathering, analysis and providing support services and information to the groups involved in deliberations.

Deciding What To Do With Facilities

As a part of the earlier process of evaluating facilities, the school district will explore alternative uses of vacated facilities. Obviously, later use of these facilities will vary greatly depending on several factors including age and condition, zoning, ownership and probable future need by the school district. Among the most common dispositions are:

Conversion. The facility can be converted for a variety of purposes including: a) an alternative school; b) recreation facility; c) adult education programs; d) municipal services; e) vocational educational centers; f) pre-school programs; g) media centers; h) warehouse; i) housing for central office personnel; j) social service center; and k) senior citizen center.

Sale. The facility may be sold to: a) other governmental agencies; b) housing developers; c) businesses; d) private industry; e) community groups; f) colleges and universities; and g) intermediate unit service agencies.

Demolition. In some cases school facilities are (because of their condition, age, location or other factors) of little value to the school district or anyone else. For safety reasons, salvage or enhancement of land value, demolition may be an appropriate disposition.

Mothballing. This is a term used to describe the procedures for securing a facility for potential future use. In some areas closed facilities may be needed for future purposes (including their original purpose) within a five- to ten-year period. It makes little sense to dispose of a serviceable facility only to discover that a new facility must be acquired in a short period of time to serve a revitalized area of the community, a reversed population migration or an organizational change. Special care must be taken to protect the financial investment of the community in "reserve" facilities, e.g., security, maintenance, repairs and insurance.

Besides the four major categories listed previously several options may be possible. Leasing the facility or partial leasing and joint occupancy (using part of the facility for public school purposes and leasing or renting portions to other agencies or clients) may be possible.

According to various reports, nearly fifty percent of all vacated facilities are mothballed and ownership retained by the school district. Whether by choice or condition this action requires continuing attention of the school business administrator to protect the school district's property against vandalism, weather and general deterioration. Besides protection of the investment, the school business administrator must be aware of the concerns of property owners in the neighborhood should the facility and grounds be neglected or allowed to deteriorate.

According to the American Association of School Administrators (AASA), the school board must consider at least four questions before making a decision about the disposition of unneeded facilities. They are:

1. Should the vacant classrooms or buildings be held as inventory against the chance that future rising enrollments will require their use?

2. To what extent should the district's own needs for additional space be considered before disposal?

3. Is the district's need for income from its real estate so urgent as to justify sale, rental, leasing and joint leasing?

4. Is the district willing to turn over its vacant space (or portions of it) to public agencies without gain for itself, simply in public interest?[8]

Summary

The school business administrator plays a key role in every stage of the process leading up to the decision to close a school. The more important role is carrying out the mandate. At the early stages of school board consideration of school closing(s) as a possible option to contain budget increases, data provided by the school business administrator as a part of his or her routine responsibility is essential. Historical enrollment data and projections, school building enrollments, pupil-teacher ratios and other regularly reported information trigger the initial awareness and concerns of board members to the problems associated with enrollment decline. With most state funding formulas, which are influenced by size of enrollments and an increasing resistance to increased expenditures for all governmental services, school boards annually confront difficult choices in allocating resources.

An alert superintendent and school board will recognize that the decision to close a school cannot be taken lightly and must involve substantial community participation. This will increase the awareness of the difficult choices facing school board members in the establishment of priorities and determination of what represents quality education.

Concurrently, the board will recognize that both they and any advisory committee must establish expenditure priorities that include the feasibility of closing facilities. This will require a substantial data base for deliberations. Again, the school business official will be called on to generate and synthesize information, explore and project the impact and consequence of facility disposition, interpret state and federal policy, procedures and guidelines and prepare cost analyses of various scenarios relevant to the range of options under consideration.

Cost analyses can be developed for any school district. Allen has suggested that such analyses can be developed for district-wide scenarios as well as individual schools. For each scenario, detailed data for five school years must be projected along the following scheme[9]:

Key Assumptions
    ADA Projections
    Enrollment Decline %
    Student: Regular Teacher Ratio
    Number of Regular Teachers
    Student: Special Teachers Ratio
    Student: Administrator Ratio
    Number of Administrators
Salary Costs
    Teachers Salaries
    Administrators' Salaries
    Special Teachers' Salaries
    Total Salary Costs
    Employee Benefits
    Total Salaries and Benefits
Other Variable Costs
    Books and Supplies
    Grounds and Buildings
    Transportation
    Food Service
    Total Other Variable Costs
Fixed Costs
    Utilities (Fixed Portion)
    Grounds and Buildings (Fixed Portions)
    Other Fixed Costs
    Total Fixed Costs
Total District-Wide Costs
Costs Per ADA

For each possibility under consideration for each site, detailed district-wide expenses should be computed for the following:

Total Variable Costs
Total Fixed Costs

Deferred Maintenance
Mothball Costs
Net Lease Revenue
Net Sales Revenue
Total Costs

Once the advisory committee and the school board have concluded that school closing is a viable and preferred action, the school business administrator will be expected to prepare and present demographic and financial impact projections to the community at public hearings and through a variety of media sources. At this point the school business administrator must be certain that his or her data base is accurate and adequate to respond to all questions from persons opposed to closing a specific school. The school business administrator must inspire confidence and credibility in the information presented.

Finally, when the school board has determined that specific schools will be closed, the school business administrator must be prepared with information that details the options and financial impact of several disposition schemes. His or her knowledge of title transfer, leasing, zoning, property sale, lease back agreements, and other real estate transactions will be critical. He or she must be prepared to inventory, redistribute, warehouse or dispose of school district property according to state statute, board policy and preference. If he or she has responsibility for personnel functions, he or she will be expected to move quickly to effect personnel transfers and implement reduction-in-force policies or other personnel procedures without disrupting morale of professional and classified personnel. He or she will support the continued operation of the school to be closed, while directing an orderly transition of an active facility to whatever disposition has been determined.

Under certain conditions, the school business administrator will be expected to "retire" the facility from active service. The school business administrator must also take whatever action is necessary to protect the interest of the school district and the community.

As indicated earlier, the school business administrator is a key person in managing decline in the school district. His or her knowledge, skills, disposition and credibility will contribute greatly to the determination on whether the challenge is met effectively or with great trauma.

NOTES

1. *Declining Enrollments—Closing Schools: Problems and Solutions*, (Arlington, VA: American Association of School Administrators, 1981) 7.

2. Portions of this chapter regarding enrollment projections have been adapted from various educational feasibility studies by E.W. Nicholson and R.C. Wood (West Lafayette, IN: Purdue University).

3. National Center for Educational Statistics, *Projections of Educational Statistics to 1988-89* (Washington, D.C.: GPO); and Western Interstate Commission for Higher Education, *High School Graduates: Projections from the Fifty States* (Boulder CO: WICHE).

4. G.I. Earthman, "Alternative Methods of Projecting Student Enrollments" (Paper presented at the meeting of the Virginia Education Research Association, Roanoke VA, October, 1980).

5. Educational Facilities Laboratories, *Surplus School Space: Options & Opportunities* (New York: 1976) 60.

6. American Association of School Administrators, *Declining Enrollment—Closing Schools* (Arlington, VA: 1981), 88.

7. K.E. Eisenberger and W.F. Keough, *Declining Enrollments: What To Do* (Arlington, VA: American Association of School Administrators, 1974), 35-38.

8. Ibid.

9. T.W. Allen, "Analytical Tools to Ease the Burden of School Closure Decisions," *School Business Affairs*, 50 (January, 1984), 26, 28.

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Facility Planning and Management

Glen I. Earthman

Planning a school building is a series of interrelated activities, conducted by many professionally and technically trained personnel and involving many community persons. Some early activities can be completed independently of others and out of sequence of the succeeding process; but, for the most part, each activity depends on the preceding activity for success of the planning effort. However, each activity is discrete; it has a beginning and an end. Each activity fits into a chain of events that produces a product, in this case, a school building.

Planning activities associated with building are some of the most technical and demanding done by the school district. With the normally large expenditure of funds for planning and building, they constitute the most expensive event or planning activity done by the organization. It is, therefore, important that the planning activities in the area of capital resource planning be done expeditiously and exactingly. Poor school facility planning is costly and almost always remains for the life of the building. Consequently, no effort should be spared in augmenting planning for capital projects.

More than planning activities produce a school facility; the general phrase "school facility planning" encompasses all activities that deal with programs at one end, and actual construction and evaluation of the facility on the other. All these activities are supervised and directed by school personnel trained in educational administration. The school district (and its employees) must see that all these activities are completed in accordance with school policy and state laws.

The kinds of activities the school district is normally responsible for either completing or having completed in planning for a school facility are:

- *Planning*
  Organizing the Staff
  Organizing the Task
- *Long-Range Planning*
  Gathering the Data
  Developing a Planning Document
  Approval Process
- *Fiscal Planning*
  Determining the Method of Financing Schools
  Planning the Capital Improvement Program and Budget
- *Site Planning and Selection*
  Selection of Site
  Acquisition of Site

- *Architectural Services*
  Criteria Development
  Selection Procedure
- *Planning the Facility*
  Program Development
  Preparation of Educational Specifications
- *Design Process*
  Design Development
  Design Review and Approvals
- *Bid and Construction*
  Bidding the Project
  Construction Supervision
- *Planning for Occupancy*
  Orientation of Staff
  Community Activities
- *Post-Occupancy Evaluation*
  Process Evaluation
  Product Evaluation

Usually, one office is charged with heading the planning process for school facilities. In a large school district, that office may be headed by an Assistant Superintendent for School Planning. Under this umbrella office, a number of offices may be headed by a director or supervisor, each charged with a responsibility related to the planning process:

- Demographic Planning
- Capital Program Planning
- Site Selection and Acquisition
- Facility Planning and Programming
- Architectural Review
- Construction

Each of these offices is headed by persons trained in that area of professional or technical expertise. The site selection and acquisition office might be directed by someone who has a law degree with specialization in real estate. Likewise, a person with an architectural registration might direct the architectural review office. All offices work together to complete each project contained in the capital improvement program (CIP) and budget, and each office completes its own activities.

Large schools need large organizational staffs; they must provide new or different housing for the student population. In small school systems, where the facility need is not as great, the staff is smaller. Someone, however, in every school district has responsibility for facility management and planning. In smaller school systems, the office usually is responsible for facility planning and maintenance and operations. When a new facility is needed or existing facilities need renovation, the office brings outside expertise into the district by contracting with various agencies or companies. Such assistance can comprise educational and financial consultants, architects and engineers. The general rule: the smaller the organization, the more outside expertise the school districts need to complete a facility planning project.

Regardless of the size of the staff of the school district, the activities required to plan and construct a school facility must be carried on by school district personnel or outside assistance.

Each project for planning a new school or a major renovation (or improvement to an existing facility) should be directed and guided by one person, augmented by appropriate school district and outside personnel. Several titles exist that such a person can be given and are used by school systems, such as supervisor of planning, facility planner, educational planner, project manager or planning director. Characteristics of such a position might include experience as a teacher and principal, planning knowledge and experience, work with governmental agencies outside of the school district, some knowledge of the design work of architects or of construction and ability to work with large and diverse groups. They may be hard to find in one individual, but such qualifications are needed in the course of planning for a school facility. At minimum, the person chosen should know the school district and its planning; the person can then gain experience by doing the planning. Often, the school district can obtain help from educational consultants to guide the individual through the process. But, it is of the utmost importance that one person be charged with the responsibility of carrying the project through to completion.

The task of planning, designing and constructing a building is an arduous and time-consuming one. Therefore, it is necessary to plan a facility long ahead of the time when the need, in terms of pupils requiring to be housed, becomes a fact. Unfortunately, in the decades after World War II many school systems could not even get ahead of the need and the idea was simply to catch up with the population. Those situations need not ever happen again because the planning expertise available to the educational establishment of the country should be able to counter the social and demographic conditions that caused such a situation.

But the key to that scenario is that the planning expertise be utilized properly. Many instances are reported where the school district did not adequately plan ahead for facilities. Undoubtedly, those instances illustrate the lack of planning on the part of educators and boards of education or the proper use of planning resources. School systems still need to be reminded to improve their planning processes and utilize the resources available to them.

Long-Range Planning

Only fourteen states require some form of long-range planning on the part of the local school district.[1] As discouraging as this may be, however, it probably does not accurately represent the level of such planning that is actually practiced on the local level. Nevertheless, the need for and importance of long-range planning cannot be over-emphasized because there still is not enough long-range planning done by school systems across the country. The limited resources available to public schools and the increasing demand for services from constituents make it mandatory that every school district have in place a long-term plan to guide its development. Additionally, to secure a high level of cooperation and coordination among all of the staff in working toward the common goals of the school district, the board of education needs this type of document to serve as a guide.

Depending on the state and locality and to a certain extent the complexity of organization, long-range plans can be very simple or extremely complex and comprehensive documents. For the most part, however, all long-range plans cover certain topics in an effort to give guidance to the way an organization responds to community demands and how the available resources should be used to meet those demands. The basic elements of a long-range plan addresses:

- What is the purpose of the organization?
- How is this purpose discharged?
- Where is the organization located?
- Who will carry out the purpose?
- Where will this activity be financed?

To answer these questions, considerable data need to be gathered from various offices and individuals of the school district as well as from other governmental agencies. The method of gathering the data becomes the method of planning; it can range in simplicity or complexity as the local situation demands. Obviously, with large urban organizations, the method of planning will be much more complex than in smaller ones. Regardless of the complexities of the planning method, the output or product will be the same, a document which will identify the organizational goals and list ways to achieve those goals and establish resources and methods of meeting them. But one of the first questions that has to be answered in determining the method of planning is who will actually be involved in the planning process?

The days of planning in a vacuum within the confines of the office of the central administration are long past, and a more participatory type of planning is usually in evidence. But the extent of involvement by various groups and individuals needs to be determined beforehand. Will teachers and other non-administrative types of employees be involved and to what extent? If so, which groups and individuals? Only the local school district can answer these questions, and the board of education is the body that makes the determination of who is involved.

Planning Methods

There are many ways of planning—of actually doing the work necessary to develop a plan of action. One model of planning, a seven-step process, is offered by Banghart and Trull:[2]

1) Define the educational problem
2) Analyze the planning problem areas
3) Conceptualize and design plans
4) Evaluate the plans
5) Specify the plan
6) Implement the plan
7) Plan feedback

The Council of Educational Facility Planners, International (CEFPI) lists a similar seven-step methodology for working with community members in the planning process. The emphasis in this planning model is an involvement of community members in a decision-making process. This methodology lists the following steps:

1) *Get Organized/Define Problems and Goals.* In this step the organization/group/individuals must define the purpose or problem, what is to be accomplished, time lines, responsibilities and how this will be done.
2) *Gather Information.* The information needed to answer the above question is identified and collected. Both hard and soft data are gathered. The organization/group/individuals must locate the source and compile the data in appropriate form for use in the subsequent steps.
3) *Develop Priorities.* From the work in step two, there will be a list of needs. In this step criteria are established for prioritizing the needs. The needs with the highest priority are the ones that the planning process will help to achieve.
4) *State Program and Facility Needs.* In this step the organization/group/individuals assess which priority needs can be met by existing resources and what changes are needed to do so and determine program and facility needs for priorities which cannot be met by existing resources.
5) *Explore Options.* The options identified above need to be explored in terms of the community. They need to be evaluated in several different ways so that one preferred option is selected.
6) *Refine Preferred Option.* Once community agreement has been achieved on a preferred option, it is necessary to work out the details. The kinds of details that will need to be addressed will depend on the nature of the alternative which best meets the needs of the community.
7) *Follow Through.* This step or phase is the execution of the plan of action. The form of activity under this step can take the form of hiring new staff, offering new programs, initiating capital projects, signing agreements or getting out publicity. The implementation of the plan begins here.[3]

The organization/group/individuals involved also address other concerns after they have completed the final step. These concerns deal with the continuing role in the planning process, evaluation plan for periodic review and communication about the preferred option and its implementation.

The two lists are similar in what is done to arrive at the plan of action. The CEFPI model is based on wide community and organizational involvement.[4] Because of the nature of the school district it seems important to involve both the clients and the operators of the organization. Each school district, however, must decide the methodology to be used in developing a plan so that local conditions, available expertise, indigenous processes and state requirements are observed.

Long-Range Plan Elements. The specific topics to be covered in any particular long-range plan may be governed by law, but they nevertheless address the questions that were raised in the first part of the chapter.

1) *Description of the community.* The particular community and its inhabitants are described in detail including the make-up of the various groups that are found in the area and other demographic statistics. Community resources in terms of agencies, organizations, physical features and even individuals may be described here.

2) *Description of the Educational Program.* The goals and purposes of the organization should be delineated and then refined into objectives. Some organizations term this the mission statement. Following this, a description of the educational program that stems from the goals or mission statement and is currently carried on should be specified in detail. The proposed changes to the program should also be stated. Scope and sequence also needs to be enunciated, and the human resources needed to staff the educational program should be identified.

3) *Identification and Projection of Clientele to be Served.* This section of the report looks at the number and kinds of students to be educated now and in the future. The pupil population of the schools should be projected for the next five years so that educators can anticipate the kinds and amounts of materials, textbooks, staff, furniture and facilities that will be needed. The projections of clientele should not be limited only to the age group traditionally served by the school, but should also project numbers of pre-schoolers and adults that will be served by programs sponsored by the public schools.

4) *Appraisal of Existing Facilities.* The existing facilities must be appraised to determine their adequacy in terms of the kinds of educational programs to be implemented and the number of students to be housed. The results of this evaluation, on a school-building-by-school-building basis, are listed in this section of the document. Buildings to be abandoned, renovated and improved and where applicable the number and kinds of new facilities needed should be stated. From the appraisal of the existing facilities, items for the maintenance section of the Capital Improvement Program (CIP) are identified. These items then go directly into the proposed CIP.

5) *Physical Changes and New Construction.* In this section of the document all of the needed changes, improvements and new construction need to be identified quite specifically. This section differs from the previous section in that physical changes, maintenance items and new construction are identified and listed out in prioritized fashion. The previous section contains the entire evaluation of each facility that includes evaluative statements plus physical changes necessary to bring the particular facility up to par to house the proposed educational program.

6) *Financial Plan.* The financial resources necessary to fund the type of program previously described need to be detailed. The plan should identify additional staff, increases in instructional materials, funds and equipment to implement the new educational program. The capital needs for the new program are also specified in terms of costs. Both the operation and capital costs need to be projected over the life of the proposed long-range plan.

After the long-range plan is developed, it is submitted to the board of education for their approval. When it is approved, the document serves as the guide for all planning activities in the school district for the life of the plan. The life of the plan, however, may be only one year; the staff and board of education should review the long-range plan each year to determine what changes and revisions need to be made. Often the changes are such that a new long-range plan is then developed. Usually revisions are made annually; at the end of five years a new long-range plan is made.

The data contained in the long-range plan regarding facilities become data for the CIP and the Capital Budget. Changes in the long-range plan would produce subsequent changes in the CIP. The same sort of relationship exists between other segments of the long-range plan and various offices of the school district as it does for the school facilities department. For example, the type of staff needed to implement the educational program becomes data for the human resource plan of the school district. With each subsequent change in the long-range plan, all segments of the school district will need to change their plans.

Fiscal Planning

Having the necessary funds at the proper time to construct a proposed capital project is crucial to the success of the planning process. Few, if any, school systems have sufficient resources to provide for all of the physical needs of the community at one time; consequently, fiscal planning must take the form of obtaining funds for designated projects at a given time. Depending on the location of the school district and even the type of project under consideration, funds for capital improvement projects can be obtained from three different levels of government: federal, state and local.

Federal Funds. Funding for local capital construction projects is now virtually nil. Previously, funds were available under impact aid legislation and through selected vocational education acts; however, the current position of the federal government is that local school systems should provide funds for all school buildings.

State Funds. Despite the fact that education is a state responsibility, most states rely on local school systems to provide for the housing of students. But there are some states that do provide limited assistance. The degree of assistance varies from absolutely no financial assistance to full state funding of selected projects such as in the Maryland and Florida state assistance programs.[5] But even here the two states do not provide funds for all capital projects that are needed on the local level. Hawaii could also be considered a full state funded program inasmuch as there is only one school district in that state.

State assistance can be in the form of grants or loans. Where states do provide grants of funds for capital projects, there is usually a formula of matching local funds. The exception is the full state funding programs mentioned previously. The intent of a state loan program is to enable the local school district to obtain low-interest funds to accomplish capital projects. Such loans are paid back over a period of time varying from ten to forty years.

Local Funds. The vast majority of states rely heavily on local funds to finance construction of school buildings. School systems have access to several methods of obtaining funds, but not all listed here are available in every state. By far the most prevalent method of obtaining local funds is through bonding, although in recent years bond election failures have caused school systems to look at other methods of funding buildings.

Leasing. School systems can enter into two types of leasing arrangements, long-term and short-term. Short-term leasing is usually used to meet certain needs such as emergency housing when the regular school facility is not available because of disaster, or if the new school facility is not ready. Under such circumstances school districts often contract with churches and synagogues to use the educational facilities during the week on a one- or two-year basis.

Long-term leasing is tantamount to buying the facility by paying a rental fee over the life of the facility. Such leasing is often used for relocatable or portable buildings. In some states, a building authority or similar agency can construct a school building under the specifications of the local school district and then lease the facility back to the board of education until the building has been paid for over a period of years.[6] This is a form of lease-purchase arrangement.

Leasing of facilities by the local school district is legal in every state and serves as a useful vehicle for housing students for both short-term and long-term periods. There are a variety of arrangements for leasing facilities that may be beneficial to a school district as an alternative to constructing a new facility. Analysis of cost of ownership versus leasing should be made to determine the feasibility of either approach.

Pay-As-You-Go. Under this method of financing, school systems construct facilities segmentally over years, as funds become available through the current tax revenue of the district. This method is virtually the same as paying cash for the building. Many problems are associated with this method of financing, not the least of which is the vast coordination and planning needed to ensure that the facility is completed when, where and according to the needs of the educational program. An additional problem is that this method does not keep up with any inflationary trend in construction. Very few school systems use this method of financing school buildings.

Sinking Funds. This method of funding capital projects enables the school district to set aside, each year, money to be used in the future. When the school district has saved the money, it constructs the facility. This method of funding capital projects is not legal in every state nor can it keep up with the inflationary trend in construction.

Bonding. The most common method of obtaining funds for construction is through bonding, by which the local school district enters into debt to obtain the funds following a successful bond issue vote. School bonds are paid off through the debt service portion of the operating budget using current tax revenue.

Two types of bonds may be issued following the bond election—term and serial. All term bonds of a given issue mature on the same date and are redeemed at that time. Serial bonds mature at varying periods of time ranging from five to twenty years and each series is redeemed at maturity. Interest on these tax-free bonds is paid during the life of the bond.

Bonds of all local governmental units including school systems are classified as municipal bonds and are currently tax-free. This advantage enables the school district to obtain lower interest rates than other types of bonds. School bonds are general obligations bonds in that the full faith and credit of the school district or local governments is pledged for the redemption of the bond. The services of a bond attorney should be secured by the school district anticipating a bond selection to ensure meeting all legal requirements of the particular state and locality.

Non-Tax Revenues. Some school districts are able to sell sites or other real estate and property that is not in current use to obtain funds for needed capital projects. Such funds would be considered as non-tax revenues in that the school district obtained funds without increase in the tax rate. Other forms of this method might be selling or leasing ground or air-rights over school property or construction of educational facilities that have rentable space. An example of the latter method of securing facilities would be where a private firm might construct a building on a school site and then enter into a long-term lease with the school district whereby the school district would pay for the use of a portion of the building that is being used for school purposes. There are several advantages to this scheme, including the tax revenues generated from the developer.

Capital Improvement Program. The CIP of a local school district is a document that lists and projects all capital needs for the future. Such a program usually covers a period of time (such as five years), although some governmental units extend the program for ten to twenty years. Some states mandate by law the format and limits of the local CIP. All of the capital projects including planning funds, site purchase, new construction, renovation of existing buildings and maintenance items for all existing facilities are included in the document. The purpose of the CIP is to allocate limited resources over a period of years to prioritize projects in order to accomplish the listed physical items. Without some form of prioritization of projects, it would be difficult to keep all existing buildings in good order and provide for future physical needs. Each year the programs are updated by deleting those projects that have been funded and completed and adding new items that need to be completed. The document is then reviewed and approved by the board of education. The CIP also contains a section termed the annual capital budget. Inasmuch as a budget is an approved expenditure plan, the capital budget contains the authorization and funds necessary to complete each item listed for that specific year. Each year the board of education publicly reviews and then approves the capital budget and the CIP.

Funding of the capital improvement budget can come from both regular tax revenues and through borrowing by means of a bond issue. Each school district should maintain a current CIP and approved capital budget to meet the ever-changing physical facility needs of the community.

Site Selection and Acquisition

Selection and acquisition of suitable sites for school facilities are a very important part of the school planning process. Acquiring the proper site for a school facility has a tremendous impact on the potential for service to the community. Often such a site is unattainable. In fact, obtaining good sites for schools is more difficult today than at any time previously. Reasons which account for this phenomenon include: competition for sites by the commercial sector; the increase in site size to accommodate an expanded educational program; the inflationary rise in land prices; and, in urban areas, the movement of people into heavily populated areas where there is little open land. As a result, educators now must consider sites that they might have rejected previously.

Several imaginative schemes have emerged from the shortage of sites. Such plans include the placement of school programs on docked ocean vessels, like the Queen Mary or Queen Elizabeth, in unused suburban train stations, over highways and even in existing community and commercial facilities. Only the latter has been implemented in the Parkway School in Philadelphia. The others illustrate the extreme to which educators have felt compelled to go for school sites.

Almost everyone wants a new school when it is needed, but no one wants the facility located next to their own property. The reasons for this paradox normally is centered on the intrusion of large numbers of youngsters presumably generating too much noise and traffic. Some persons have the ungrounded fear that a school located adjacent to their property will have a negative effect on their property's value. Karl Grube pointed out that the neighborhood school site has a positive economic effect on surrounding property.[9] He studied a locality in the Midwest where a new school facility was constructed and found that property values actually increased over a period of years.

All of the foregoing points to the fact that the selection of a school site is one of the most controversial issues educators face in planning a new school. The process is so controversial that some school systems conscientiously do not involve nor notify community members that a site for a new school in the community will be selected. This is particularly true in large school systems where the political process is volatile.

In a survey of the ten largest school systems in the country, respondents in a majority of systems indicated they do not involve community people in the selection process. Their reasons included fear that local political problems might spill over into the selection process and delay approval of the proposed site or prevent the school district from acquiring the site altogether.[10]

This exclusionary practice, however, is not universal. Many school districts, as a matter of policy, involve community members in this phase of school planning.

The process of selecting a site for a school facility normally hinges on the long-range development plan of the school district. As stated earlier, the plan should identify those areas of the school district where growth and development will take place and then identify generally those neighborhoods where and what level of schools will be needed in the future. The data from the Long-Range Development Plan are then entered into the CIP for the appropriate year for when it will be funded. When the particular project for selecting a site becomes funded, the appropriate office or agency in the school district is then authorized to initiate the selection process.

Selection Process

The selection of a site entails three tasks: developing criteria to govern the selection of a site; applying selections criteria to each prospective site; and approving the selection by the board of education.

The actual selection of a school site involves many organizations and persons with a variety of skills. The site team may include any and all of the following: educational administrators, educational consultants, architects, urban and regional planners, landscape architects, recreation planners and legal counsel.

Each person or organization contributes to the process as the need demands. The major share of responsibility falls with the school district administrators, educational consultants and architects because much of the data that are needed to develop and apply criteria is generated by these individuals or the offices they represent. This is the group that must develop the criteria and then apply them in making their recommendations to the board of education. The team is headed by a responsible school district administrator who assists the group in completing the task. After the criteria have been identified and approved, the team identifies potential sites for consideration. Several sources of data can be used by the team to obtain data regarding potential sites. Such sources as the following are helpful to the team: 1) the comprehensive regional, urban or community land use maps; 2) aerial photographs; 3) re-development authority maps and official minutes; 4) an actual tour of the proposed area to be served by the new school.

Site Selection Criteria. The site team develops a set of criteria based on the educational requirements of the proposed school. They then use these criteria to evaluate each potential site. The criteria may vary from school district to district and from one geographic area to another, but certain similarities in all criteria used by school districts. The CEFPI suggests that the criteria address the following questions:

- Will the site support the educational program?
- Is the site's location convenient for the majority of pupils?
- Is the site the right size and shape?
- Is the topography conducive to desired site development?
- Is the general environment aesthetically pleasing?
- Is the site safe?
- Is the air quality healthful?
- Is the site free of industrial and traffic noise (both air and ground)?
- Does the land drain properly and are other soil conditions good?
- Does the site have desired trees and other natural vegetation?
- Is water available?
- Is the site near community services—library, parks, museums?
- What is the relation of the site to existing educational facilities?
- How is the surrounding land zoned? Will its development enhance the school site?
- Are utility services available?
- Is the site served by public agencies—police, fire department, etc.?
- Is the site easily accessible to service vehicles?
- Is the site available?
- Is the price affordable?
- Can the land be shared with other community facilities and organizations, especially parks?
- Will the site provide desirable open space for the community where it is needed?
- Is the site expandable in the future?

In addition to the above questions, the criteria should address important community concerns including the impact the acquisition of a site has on existing housing and the district's desegregation plan. Especially in urban areas where adequate, existing housing is so valuable, displacement could induce a community response that could adversely affect the purchase of a site. Of course, the final criterion for any site is whether a particular site can pass political muster. The selected site must be politically acceptable or, at least, not unacceptable to the power structure of the community before the board of education can take any action.

Testing of the political acceptability of any potential site is usually done informally; however, in most areas the selected site is approved by the regional or urban planning commission as a matter of formality. In so doing the political power structure can make its desires known. In populated areas, a school site is usually designated long in advance of need by the local governing body after consideration of the long-range development plan of the political sub-division. In this manner the judicious placement of such community resources as schools, recreation areas, parks, libraries and other facilities are determined on a broader basis, designed to serve the whole community.

Application of Criteria. In developing a list of potential sites, certain general criteria apply before a site is placed on a list of potential sites. The team looks for sites that meet basic predetermined standards. Once the list of these sites has been developed, the team evaluates each site both objectively and subjectively. Objective comparisons will be based on such data as: size of parcel, price of the land, distance of utilities to the site, soil percolation, quality of the air and location and distance of the clientele to be served. Subjective judgments may be based on: the aesthetic environment, impact of the proposed school on the neighborhood, use of other community services, marketability of the site and adaptability to future grade-organizational changes.

After applying the criteria to each site, the team narrows the list of potential sites to one or two. If the school district has several promising sites to consider, they may want to compare the two best sites in the final stage. Often, however, school systems do not have the luxury of choosing among several sites, but are limited to selecting from two possible sites. In this case, the site team may want to conduct a physical examination of each site before formally applying the criteria. Additionally, some school systems have some soil testing and inspection by licensed engineers completed before making a decision. After evaluating all available data the site team makes its recommendation to the board of education for consideration—approval or rejection. If approval is given, the board of education then authorizes the legal counsel of the school district to obtain the site.

Site Acquisition. A school district may obtain a site in any of four ways.

1) Negotiations with the owner and subsequent purchase
2) Condemnation procedures and subsequent purchase
3) Acceptance of a gift of land
4) Receipt of surplus governmental property

The most common method of obtaining a site is through negotiation with the owner and subsequent purchase. The vast majority of sites are obtained through this process in a straightforward manner, with the proper board of education representative conducting all of the negotiations. There are, however, instances when the owner and the board of education cannot resolve the purchase price for a site.

When an impasse in negotiations for the purchase price of a site occurs, the board of education has recourse through the exercise of the right of eminent domain. This right stems from the state; by virtue of the fact that the local school district in every state is a subdivision of that state, it possesses the right of eminent domain.[12] This is the right to directly obtain a parcel of land when the owner refuses to sell, regardless of the reason. The process of obtaining a site through this method is called "condemnation." A board of education passes a resolution to the effect that a particular site is needed for school purposes, and a proper disposition is made to the designated local court to that effect. The court then conducts proceedings to determine the equitable price of the parcel of land. This is done by having the court either appoint appraisers or by receiving appraisals from the school district and owner. In either event, the court determines the equitable price of the land and the school district obtains clear title to the site on payment of the determined price. This process of securing land for schools is not often used because it is very time-consuming and can result in a public relations problem of gigantic proportions. Nevertheless, in special situations a board of education may choose to use this method.

In cases where patrons or organizations donate a parcel of land to a school district, the board of education can use the gift of land for a school site, sell the land and use the proceeds of the sale for any important purpose or exchange the land for either a different site or other physical facilities. The general rule concerning gifts is that the board of education can accept gifts and may use the gift in whatever manner deemed prudent and for the benefit of the school district. The deed to the land, however, may have a codicil to the effect that the land can be used only as a school site, in which case the board of education must use the gift only in that manner. If the site is not used for a school facility, the title to the land may then revert to the original owners.

In some areas of the country, state and local jurisdictions have enacted ordinances to the effect that developers of large tracts of land for housing purposes must deed a certain amount of land for public services such as a school, fire station, library or other functions. In lieu of the dedication of land, the developer may pay a lump sum of money to the local government equal to the cost of land that would normally be dedicated.[13] Where such ordinance or restrictions are in effect, the board of education must work closely with the appropriate planning department of the local government to ensure that the dedicated tract of land will indeed serve the functions of the school district.

The fourth method of obtaining land for educational purposes is through the surplus property programs of either the federal government or in some cases the particular state. The instances where local school systems have obtained useful sites for schools through this means is very limited. But the federal government and selected states do on occasion declare real property surplus and available for the local governmental use. Although the needs of the school district and the availability of property from other governmental units seldom mesh to the benefit of both parties, there have been instances where arsenals, parks, camps and other types of real property have passed onto school districts for good use in housing the educational program. School districts are usually notified when such property will become available for disposition.

After the board of education has authorized the purchase of a certain site for school use, the appropriate representative of the school district negotiates the purchase price. The board of education then must agree to that price and give the negotiator the authority to draw up the contractual documents to obtain the site. In all states the local school district must use the services of legal counsel to inspect the title and to draw up the documents for the purchase.[14] It is important that the school district obtain and hold a clear free simple title to the property to protect their rights to any subsequent facility that is constructed on the site. The local board of education holds the title to the land for all sites owned and controlled by the school district.

The Design Process

Architectural Services. When an architect is employed by a school district, certain standard services can be expected to be performed in designing a capital project. Five basic services or phases of service of the project include:

1) Schematic design
2) Design development
3) Preparation of contract documents
4) Monitoring the bidding or negotiations
5) Supervising the construction[15]

Services that are required of the architect are specifically covered in the contract document that the school district and architect negotiate and sign. The specific provisions of the relationship between the school district and the architect must be identified and explained in that document.

Occasionally, there are pre-design planning activities in which the architect is engaged by the school district. Such activities are usually covered in the standard contract document along with other services. Some architects consider pre-design activities separate from basic services.

Pre-Design Planning. The tasks to be completed in this phase of development are the selection of the site and the preparation of educational specifications. Often, school systems have the architect serve as an adviser or observer to this process, but the actual work of selecting the site and preparing the educational specifications is reserved for an educator. Local practice will usually determine the extent of involvement of the architect in the pre-design planning process. The most beneficial use of the talents of an architect at this stage may well be in providing advisory-technical assistance to the site selection team.

Schematic Design. This phase of project development begins with the educator translating the educational needs of the school district, as expressed in the educational specifications to the architect. This phase is followed by a period of intense interaction and communication between the educator and the architect, in which several concepts or designs are reviewed. The result of this phase is a set of line drawings of the entire facility. At this stage, the board of education reviews the work of the architect (as represented by the schematic drawings) and approves the work to date. This is an important milestone of the project, for it is at the point that the basic building design is set and little deviation in the exterior structure of the building can take place in the future. The interior of the building, however, will change during the next stage of development. The school district must review the design during this period to ensure the proper development.

Design Development. After the schematic design is approved by the board of education and any other necessary governmental agency, the architect then proceeds to develop and refine the drawings. There is an intense dialogue between educator and architect while the design is being refined. The plans and other construction documents are then prepared. This period of time may cover from six to thirty months depending on the complexity of the project, and the administrators in the school district must constantly monitor the progress and work of the architect and the architectural staff in developing the design of the facility.

Preparation of Construction Documents. The architect is responsible for the preparation and production of the formal construction documents. These documents consist of a complete set of working drawings and a set of technical specifications.[16] Some variation may exist between states and regions, but the working drawings consist of a series of drawings that are prepared along the lines of the various disciplines: architectural, structural, heating/ventilation/air conditioning (HVAC), electrical, plumbing, fire protection, interior design and landscaping. Depending on the complexity of the project, the documents may include all of these, or they may simply contain the architectural, electrical, plumbing and HVAC drawings. In any event, the working drawings are the drawing documents used by contractors and builders to prepare bids for submission to the school district.

The second part of the contract documents is a book called "technical specifications." This document contains: 1) bidding documents that contain the bidding instructions and other legal conditions; 2) conditions of the contract including general and specific provisions that will govern the relationship between the contractor and the school district; and 3) technical specifications that provide a detailed description of all material and workmanship to be used in the facility.[17] Sometimes, school districts provide much of the material for the technical-specification portion of the document because they want to specify the type of material (or equipment) to be used in the new building. School systems may desire uniformity in the various components and materials for buildings owned and used by the school district. In such cases, the school district would require the architect to write specifications for material that would be exactly like the corresponding components in the existing buildings. For example, some school districts prefer that all door and window hardware, or similar components of all buildings, be the same because of the ease in replacing damaged or worn parts, and the efficiency of warehousing the various components.

The technical specifications may be written as either performance specification, where the results or performance of a product are desired, or as descriptive specifications which describe the actual product. Most school systems use descriptive specifications, including those school districts that desire uniformity in building components.

Monitoring the Bidding Process. Depending on the size of the school district, the architect provides several services in this stage of the project such as: preparing the bid advertisement, issuing bid documents, answering questions and inquiries regarding construction, evaluating the bids and assisting in the preparation of the contracts. Usually the legal counsel of a school district completes all legal requirements of the bidding process such as preparing the advertisement and preparing the contract, but the architect may assist the legal counsel by providing data regarding the project to be included in the legal documents. The architect may assist the school district by interesting potential bidders in the construction project and, in turn, providing lively competition that can result in lower bids.

In cases where it is necessary to negotiate with contractors regarding a bid, the architect can present the needs of the school district. In some states, school districts negotiate with the lowest responsible and responsive bidder when that bid is over the budgeted amount. In such circumstances, the architect can provide the school district with alternatives in the desired facility and identify economy options that may assist the bidder in meeting the needs of the school district. The school district may, therefore, proceed with construction rather than reject all bids, re-design the facility and re-bid the project. These options may only produce higher bids because of inflation or delay the project beyond the date desired.

Some states allow school districts in certain circumstances to negotiate with construction management firms to complete a building project, rather than submit the project to competitive bidding. Where this is allowed, the school district that already has an architect under contract may use that person in the negotiation process with the construction management firm.[17]

Construction Supervision. The services offered by the architect during the construction phase often are not completely understood by the educator. As a result, the school personnel are not always sure of what to expect from the architect and the architect's staff during this period. Certain tasks that the architect must do to discharge his responsibility are required during this phase of the project under the basic services section of the contract. They include:

1) Representing the owner
2) Making periodic visits to the construction site
3) Approving payments to the contractor
4) Interpreting the requirements of the contract and rejecting work which does not conform to contract documents
5) Approving shop drawings
6) Preparing change orders
7) Conducting inspections to determine dates of completion
8) Issuing the final certificate for payment of the contractor[18]

The assistance of the architect during the construction stages in interpreting the requirements of the construction contract whenever questions arise, is vitally important to the success of the project. When the project is completed, certain required activities are demanded of the architect, including securing bonds and guarantees and issuing the final certificate for payment of the contractor. The latter officially completes the work of the architect.

Although not stated specifically in the normal contract, the architect is usually involved in orientating the school's staff to the new facility. This service is often given free to the school district. Proper orientation is particularly important for engineers and custodians who will be responsible for the mechanical systems of the facility. With sophisticated HVAC systems, the engineer and custodian need to understand the proper functioning of the equipment.

Additional Services. The school district can reasonably expect the architect to provide the above basic services, but should additional services be required, the school district must contract separately with the architect for the work. This contracting is done by an addendum to the architect's contract. Services that are outside the realm of what is normally considered basic architectural services include:

1) Assisting in site selection
2) Constructing special analyses and studies of the owner's needs beyond those called for in the schematic design
3) Making measured drawings of existing buildings
4) Providing detailed cost estimates beyond the statements of probable costs called for in the basic services
5) Providing interior design and services for special selection of furnishings
6) Planning surveys and site administration
7) Reviewing previously approved drawings to make changes not initiated by the architect
8) Furnishing additional services resulting from default of contractors or other similar events over which the architect has no control yet which involve for him or her significant additional time and cost
9) Providing post-occupancy evaluation services.[19]

One area that causes confusion is the supervision of construction. The usual American Institute of Architects (AIA) contract does not provide for daily supervision of the construction project; in fact, it calls only for periodic visits by the architect or the architect's staff. Should the school district desire such supervision from the architect, an addendum to the contract would be needed to account for the extra cost of this service from the architect.

Another way to handle the day-by-day supervision of the construction project is for the school district to employ its own supervisor. This method offers the advantages of reducing costs and giving the school district its own employee (not an employee of the architect) on the scene every day. School districts need to have such daily supervision to protect their investment and to ensure the timely completion of the project with the desired types and kinds of workmanship.

Fee Schedule. Several methods exist for compensating an architect. The most prevalent is by using the construction cost of a facility as a basis for determining architectural fees.[20] Under this procedure, architects are paid a certain percentage of the construction cost. The percentage varies with the amount of construction to be done and with the negotiating process. Some states have published guidelines for percentages of construction cost to be used in employing an architect. The state chapter of the AIA also can supply a list of suggested percentages to be applied in negotiating a contract.

The construction cost consists of the cost of completed construction for the project less cost of the land, right-of-way or similar costs. When the school district negotiates a contract with an architect, the method of compensation is determined and becomes a part of the contract. When services outside of the basic architectural services are desired by the school district, architects are compensated separately from the basic fee. The usual fee for such additional services is the cost of direct personnel services plus reimbursable expenses, where the personnel costs are the salaries of professional, technical and clerical employees and their benefits.

Like the contractor, the architect will expect to be paid periodically using the progress of the work. Although the school district and architect may set any mutually agreeable payment schedule, an initial payment of five percent of the total fee is frequently made to the architect when the agreement is signed. Payments are usually made on a monthly basis, in proportion to the services rendered. The following schedule of payments is taken from the AIA agreement, Document B141 and defines the percentage of the total fee that should be paid at the completion of each of the basic service phases:

• Schematic Design	15%
• Design Development	35%
• Construction Documents	75%
• Bidding and Negotiation	80%
Construction	100%[21]

Provisions in the architectural contract must also be made for the disposition of payments to the architect if a project is suspended for a certain amount of time or is abandoned in part or in whole.

Architectural Contract

When the school district has chosen an architect, a contract is signed following the official board of education resolution of selection. The school district may use a contractual document that is prepared by its legal counsel or they may use the standard AIA Document B141: Standard Form of Agreement between Owner and Architect. Should the school district decide to write its own contract, the assistance of a competent architect will be needed by the legal counsel to advise on the needed services and to make provision for all conditions. Inasmuch as the contract represents a considerable amount of money and delineates the exact relationship between the board of education and the architect, care must be exercised in writing the document to ensure that all exigencies are covered. Certain advantages exist in having the legal counsel of the board of education write a contract particularly in addressing local customs and circumstances deemed important to the school district.

Architect Selection

An architect is a professional who usually has eight or more years of advanced study and training. In all cases, the architect has passed a state qualifying examination and is normally a member of the AIA which mandates a code of professional ethics.[22] An architect brings a strong sense of dedication and service to the school district in designing facilities to house students. Not every architect, however, can work successfully in the atmosphere of a public school district where there are many levels of approval. Therefore, in selecting an architect, the board of education must make certain that the successful candidate understands the problems and complexities inherent to public governmental organizations such as school districts.

There are three methods of selecting an architect: direct employment, design competition and comparative selection.[23] Direct employment is where a school district contacts one architectural firm and enters into a contractual arrangement to design the capital project. Most often such a method is used when the architectural firm has done work previously for the school district or the school district is situated in a rather small community.

With the design competition method, the school district holds a competition among selected or invited architects who submit designs for the capital project. The contract is awarded to the architect who submits the "best" designs. Most architects do not favor this method, since it requires them to expend considerable resources up-front without any way to recoup if not selected as the successful bidder.

The great amount of time and effort put into the competition by the school district does not necessarily bring better results or even as good results as the comparative selection method. This method of selection is the one most used by governmental agencies throughout the country. Under the comparative method architects are evaluated on the evidence they submit to the school district and the data collected by school district personnel through interviews and visits to former clients and facilities. The successful candidate is selected based on the evaluation done by the school staff and board of education.

Time spent by school district personnel in obtaining information and impressions about prospective architects enhances the district's chances of selecting the right person. The steps to be observed in the comparative selection method are:

1) Identify the pool of interested architects. Obtain names from the AIA Chapter, colleagues in education and the telephone directory.
2) Send out to the above information about the project and a questionnaire seeking information about the firm.
3) Review materials sent by architect firm's capability statement and completed questionnaire.
4) Identify five to ten firms that seem capable and interested. Send an additional questionnaire seeking further information including names and addresses of former clients and facilities that can be visited.
5) Review the material from the above firms and evaluate them so that the list is reduced to three firms.
6) Conduct an intensive background investigation on the three firms by contacting former clients and colleagues and visiting facilities designed by the prospective firms.
7) Hold interviews with the three architects and their staff to gather first-hand impressions and additional data.
8) Visit the offices of each of the firms in order to gain an impression of employees working atmosphere.
9) Select one firm from the list of three based on the visits, interview of the candidates and interviews of former clientele.
10) Present the candidate firm to the board of education.[24]

Most of the work, if not all, is done by school district's staff and not by members of the board of education, because administrators have more experience in interviewing and selecting personnel than most board of education members. School administrators should be given the responsibility of making the investigation and making the recommendation to the board of education. Recommendation of a competent architect who is also capable of working with a complex organization such as a school district is not an easy task and should not be relegated to persons who cannot spend full-time doing the task.

Criteria for Selection. Criteria to be used in evaluating an architect should be developed by the school district staff members, but input should be encouraged from all segments of the district and the board of education. Some of the more significant points to be considered when establishing criteria are:

1) *Registration and Professional Activities.* The architect must be licensed by the state and should be a member of the American Institute of Architects.

2) *Experience*. The architect should have experience in designing the type, kind and size of project that the school system needs. Experience in designing a school might be beneficial, but more important is whether or not the architect has worked with a school organization.
3) *Quality of Work*. The school system will want to interview clients of the architect to ascertain how they feel about the work performed by the architect. Contracting firms can also be a source of information regarding the preciseness of the documents produced by the firm as well as the relationship between the contractor and the architect. Observing and evaluating buildings designed by the architect will give further insight into quality of work.
4) *Staffing and Facilities*. The size and quality of the architect's office and staff may be of concern to the school system. The complexity of the school project may demand considerable expertise that the architect should be able to document and produce. School system personnel have to make a judgment as to whether or not the firm can handle a project the size in question. Judgments need to be made about the capability of the staff based on information submitted by the architect and gathered during a visit by the school system personnel to the architect's office.
5) *Method of Operation*. Working with a school system is significantly different from other typical architectural clients in two respects: 1) obtaining approval from various persons and groups within and without the organization; and 2) presenting ideas to a large number of persons and groups. The school system should contract with an architect who feels comfortable working within this type of environment. Architects who have had previous experience working with school systems and, therefore, "know the ropes," can be expected to work efficiently. Architects who have not had such experience but who, in the determination of the school personnel and board of education, possess the ability to work within such an organization should be considered for employment and then oriented properly to the planning mode of the school system so that they can work to the best of their ability.[28]

Obtaining a competent architect who will meet the needs of the school district is one of the most critical tasks in the planning for a school facility. Much of the success of the whole project rests with this one decision. Having the appropriate architect in the employ of the school district will enhance all of the other planning efforts of the school personnel, and contribute greatly to the success of the capital project. This is why much time and effort goes into the process of selecting the architect.

Even with the best architect under contract, however, the success of the project is assured only if the proper architect/owner relationship is observed. The architect's job is always to be in an advisory capacity. The architect does not make decisions for the school district; the architect suggests solutions to problems raised by the school district. The educator must exercise the leadership necessary to present the problem correctly and in sufficient detail to the architect so that the architect can offer effective solutions for consideration. This means that the educator must carefully detail in writing the needs of the school district and then take the necessary time to translate these needs and evaluate the solutions offered by the architect. The architect does not work in a vacuum, but rather works in conjunction with the owner, who in this case is the school district, to develop the design of the facility.

Developing Educational Specifications

The process of planning for school facilities, whether new construction or renovation of existing structures, is a complicated series of interrelated processes, starting with identification of need and proceeding through the final phase of occupying the new facility. One of the processes in the comprehensive planning for school facilities is the development of a set of educational specifications. For many reasons, this process is often the weakest link in planning facilities. Reasons why educational specifications are not more widely developed include:

1) The default on the part of educators in assuming the leadership responsibility for developing educational specifications.
2) The belief that some educators do not know how to direct the process of developing clear and concise educational specifications.
3) The vague demarcation of responsibility between the educator and the architect.
4) The desire on the part of the architect to provide extra services.
5) The misbelief that the school system does not have the capacity and/or the staff to do the task and cannot afford to purchase outside assistance.[28]

Roles and Responsibilities

For most educators, planning and constructing a new facility or remodeling existing facilities are not common occurrences. Planning a new school facility in the average school district is perhaps a once-in-a-generation happening. Consequently, educators are often unfamiliar with the separation of responsibility and relationships among participants in the planning process for a capital construction project. This is especially true in the design phase.

The School District. The board of education is the owner of all facilities in the school district and acts in that role. The superintendent is the chief administrative officer of the board of education and in this role makes decisions regarding every capital project within broad guidelines. The board of education does make certain major decisions in the process of planning, designing and constructing facilities, but the superintendent and staff augment these major decisions with daily decisions that enable the project to proceed in an orderly and timely fashion.

The Architect and the Design Team. When a school district is faced with a capital construction project of any kind, it is necessary to obtain certain expertise such as architects and engineers to help complete the project. Following the procedures outlined in the preceding section, the board of education contracts with a firm, corporation or individual to provide the architectural expertise necessary to complete the design of the proposed capital project. In turn, the architect organizes a team of individuals that will work on the project and provide certain expertise necessary for the success of the project. This team is usually called the "design team" and is headed by an architect charged with the major responsibility of the design work plus the engineers who will design the electrical, mechanical, structural and HVAC systems.

During the course of the project, the design team may be augmented by other individuals such as acoustical engineers, color consultants, soil experts, educational consultants, landscape architects and perhaps even energy consultants. This group, along with the appropriate number of draftsmen and other technicians, will design a facility and produce a set of documents and working drawings that will be used to tender a bid.

The Design Review Team. On the other side of the design process, there should be designated a group of individuals who serve as the reviewing agent for the board of education. This group of school district employees is usually called the "design review team." The task of the design review team is to review and approve the work of the design team in preparation for board of education approval.

The composition of the design review team may vary from state to state and from school district to district, but it is imperative that one person with authority act as representative for the local school district throughout the design and construction phase of the project. This person should be the same one who heads the entire school planning effort. The major duties of this person, usually designated as educational planner, include: heading the design review team, interpreting the educational program to the architect, coordinating the local reviews, submission for the state approvals and most importantly making the necessary decisions, in cooperation with the rest of the design review team, in a timely fashion to ensure completion of the project.

Working Relationships. Figure 23:1 illustrates the members of the design team and the design review team and the relationship between the two groups during the design phase.

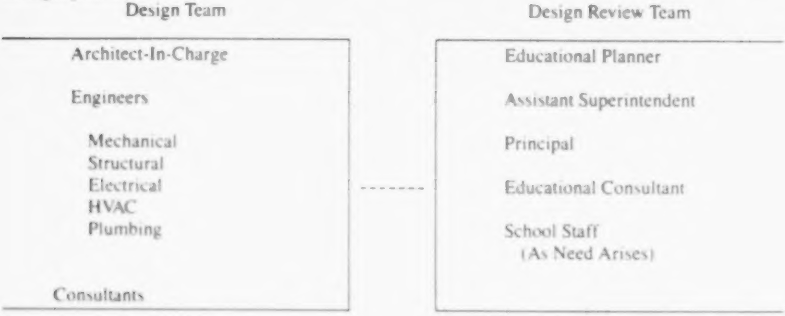

Figure 23:1 Design Team/Design Review Team Relationship

The interface of these two groups is an extremely important one for the success of the project. This interface is extremely close and is continuous during the design phase of the project. During a very intensive design process the interface may be on a weekly basis and in certain instances on a daily basis. But this interface should be continuous and for the benefit of both teams in working through the project.

During the design phase of any capital project, members of the design review team should be able to take a broad view of the project in terms of both time and space. They must recognize the need for a flexibility that will meet changing programs and yet provide adequately for the present. They must recognize that compromises are inherent in any design process. Those members of the design review team who are responsible for the review of the total concept must consciously keep priorities and programs before them and assume initiative in requesting information that will enable them to make intelligent decisions concerning development of the design. The design review team cannot abrogate this leadership responsibility and expect the design team to anticipate all of their conditions.

It is also extremely important to establish early, close working relations with all members of the design team. The most propitious time to employ an architect is long before any design work is needed. On almost every capital improvement project, both architect and engineer can provide data to help educators make early decisions regarding the facility. There are fewer problems in projects where members of both the design team and the design review team meet early and establish good working relations.

Evaluating Proposed Designs. In order to properly evaluate any proposed design work of an architect, it is necessary to have firmly in mind what the intended facility is to accommodate in terms of activities, programs and personnel. The basis for that knowledge is the approved set of educational specifications. This document will serve as the guide in evaluating the suggested designs of the architect during this stage of development.

The design stage of the school-planning process, however, should be viewed as a period of time where the architect develops, from a clear set of educational specifications, the design of the proposed facility beginning with the very initial concept through the schematic stage to the working drawings and bid documents. The design review team works closely with the design team during this stage to facilities the process, to assist in translating educational needs and to systematically review the work of the design team. The design stage may take as little time as six months for a rather small capital project, to as long as thirty months, for a more complex project such as a large high school.

Plan review should occur regularly during this period. The intensity and frequency of the review will depend to a great extent on the type of project designed and also on the stage of development. The design review team should not allow any significant amount of time to elapse without review and approval of segments of the plans. A close monitoring of the project needs to be maintained at all stages of development.

There is no easy way to learn how to read architectural drawings; no short course is offered by the colleges to help non-architectural persons read what is contained on the drawings. Competence in reading and evaluating proposed design plans may be gained from experience. Being in a position of having to review plans and designs is the most effective teacher. In the beginning, educators often ask simple questions that afterwards appear to be obvious. But in this manner, educators begin to notice what they should look for in a plan. Educators should review architectural drawings as though they were going to use the facility themselves. By looking at the plans from the standpoint of a teacher, custodian or administrator working in the building, or as a student using various parts of the facility, persons responsible for approving designs will be able to identify difficulties. The responsibility of raising questions remains with the members of the design review team and cannot be abrogated.

The design review team must also be prepared to raise questions regarding the use of building materials, initial costs, maintenance costs, lifetime operating costs, energy conservation measures and other unusual design features proposed. In addition, some school districts retain an educational consultant to assist their employees in the preparation of educational specifications and the review of architectural plans in relation to that document.

The Construction Process

After the architect has completed the design of the facility and completed the contract documents consisting of the working drawings and technical specifications, the school district is ready to enter into the bidding stage. Before any bidding, the board of education must decide whether they desire to enter into a contract with a single contractor or with several contractors. In some states it is not permissible to enter into one contract, and the board of education must sign contracts with contractors representing the different divisions of labor.[28] After the decision has been made, the final bidding documents are prepared by the architect.

The Bidding Process

There are usually five steps involved in the bidding process.

1. Locating bidders.
2. Issuing and retrieving documents.
3. Receiving and tabulating bids.
4. Analyzing the bids.
5. Awarding the bids.

Locating Bidders. School systems must advertise the bidding of the project, and this is the formal method of notifying potential bidders. Often the architect can be instrumental in securing interested potential bidders.

Issuing and Retrieving Documents. In the advertisement, the school system identifies the location of the bidding documents (board of education office, architect's office, other locations). The procedures for obtaining the documents are also set forth. Usually a potential bidder must deposit a certain amount of money in order to obtain the documents. The deposit is usually refunded when the documents are returned. This type of check-out system allows the architect to have some control of the documents and to recover the sets of plans.

Receiving and Tabulating the Bids. Bids must be received at the pre-determined time and place set forth in the bid documents. The bids that have been received are opened by the representative of the board of education and tabulated. The bidders usually attend this public opening of the bids. The bids must be submitted with a surety bond indicating that the bid is genuine and that the contractor is able to accept the offer of a contract should that bid be the one selected. Although the amount of the bond may vary, it is customarily equal to fifty percent of the bid that is submitted to the school district.

Analyzing the Bids. Analyzing the bids should be done carefully by both the school personnel and the architect. The architect can provide a great deal of assistance in this stage by evaluating the bids and the firms making the bid. School systems are by law required to award the contract to the lowest responsible and responsive bidder thus not only is the amount of the bid evaluated, but also the technical specifications. Helping to determine the adequacy of the latter is where the architect can have the greatest input into the decision. When alternate bidder arrangements are permitted, the architect must help the school personnel make the difficult decisions regarding the various alternative bids and the consequences of each alternative. It is possible for school systems to reject any and all bids, if they are above the budgeted amount for the project. It is also possible for school systems to negotiate with the lowest bidder on the type of the work and subsequent price to arrive at an acceptable bid. The architect must then reduce the scope of the project while giving the school system what it needs and be able to negotiate with a bidder.

Awarding the Bid. After the bids are analyzed the architect makes a recommendation to the school staff which then considers the bids and recommendation and in turn makes a recommendation to the board of education. In a formal resolution of that body, the bid is awarded and the legal counsel of the school system draws up a contract to be signed by the successful bidder and the board of education. This contract is then the basis of the construction work performed to erect the facility. When the contract is signed, the successful bidder gives a performance bond to the school district. This is a guarantee that the contractor will do the job contracted to do including all plans and provisions. Usually this bond is not less than 100 percent of the contract price.

Following the formalities of contract award and signing, the contractor begins to mobilize the work force in anticipation of executing the contract.

The Construction Contract

There are several contractural arrangements a board of education can enter into regarding a capital construction project. In all cases the board of education must procure services through a competitive bidding or negotiation process. While the end result of any procurement arrangement is basically the same, the relationship between the board of education and the firm responsible for constructing the building is somewhat different in each arrangement. Some of the standard contractural arrangements are:

1) Single Contract (lump sum)
2) Construction Management
3) Design/Build[29]

Single Contract. The Single Contract arrangement is the most conventional approach and is utilized by the vast majority of public jurisdictions in securing services. Traditionally, a school district enters into a capital construction project after completing the educational planning stage and having the facility designed by an architect. Following the acceptance of the design, the project is tendered for public aid. When the bid process is completed, a contract for construction is let to the lowest responsive and responsible bidder. Figure 23:2 illustrates the traditional relationship between the board of education, the architect and the contractor.

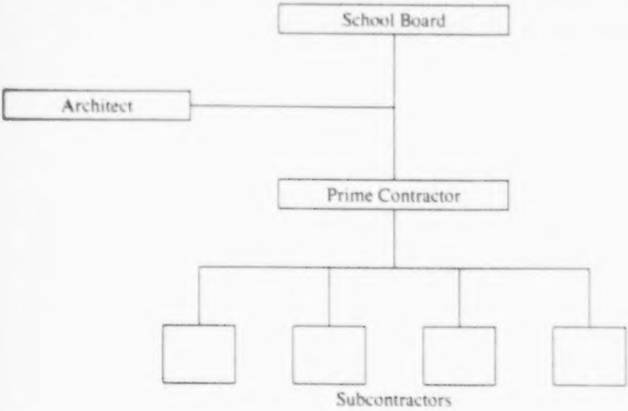

Figure 23:2 Traditional School Board/Contractor Relationship

The prime contractor secures the services of necessary subcontractors to provide for the mechanical, structural, electrical and plumbing systems. Under this arrangement, the prime contractor is directly responsible to the school board.

In some states, public jurisdictions are required to enter into separate contracts along the lines of the disciplines of the sub-contractors. With this type of arrangement, the public jurisdiction must then provide for the coordination between the contractors either through their own personnel or through outside assistance. Figure 23:3 shows the relationship between the school district, architect and contractors under this arrangement.

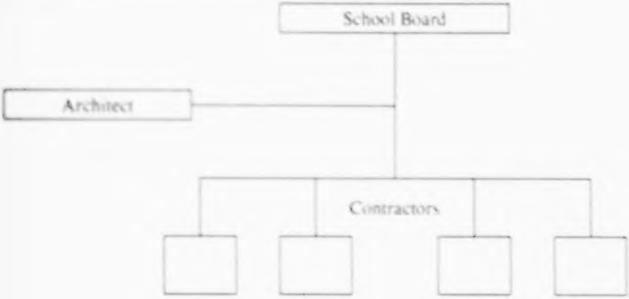

Figure 23:3 Multi-Contract Relationship

In large school districts, the type of coordination necessary to successfully complete the project is not a serious problem because personnel are readily available in the school district to do the work. In small school districts, it is often necessary to look outside of the school for the needed personnel to coordinate the work. The situation with the small schools seems ready-made for a newer type of service relationship known as "construction management."

Construction Management. The Construction Management contractual arrangement is shown in Figure 23:4.

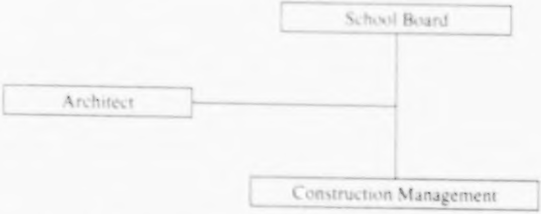

Figure 23:4 Construction Management Relationship

While the construction management arrangement may seem similar to the conventional approach of using a prime contractor, they differ in the area of responsibility.[30] As commonly practiced, the construction management firm is employed by the school board to provide a continuity of leadership from the design phase through occupancy. The construction management firm makes significant inputs to the architect relating to cost, quality of materials and time. In this manner the architect can then adjust the bid package to take advantage of the market. The actual bidding of the project is left in the hands of the construction management firm. If cost overruns become apparent, the bidding specifications may be adjusted to stay within the budget. In some cases, the quality of materials may be lowered. The duties of the construction management firm end with the occupancy of the building. The adjustments and guarantees made by the construction management firm become the responsibility of the board of education at the time of occupancy. Such conditions can add significantly to the total cost of the facility.

Construction management contracts vary and should be reviewed by legal counsel before the contract is signed. This type of contractual relationship is used widely in the private sector where there are few governmental restrictions regarding this relationship. The same is not true for public school districts. Before a school district contemplates this type of contractual relationship, either state or local legal counsel should be consulted to determine its legality.

Design/Build. Another contractual arrangement that school districts have begun to use in completing capital projects is called design/build.[31] Under this arrangement one firm does the design work and the construction work. An advantage of this arrangement is that the school district has only one firm or team to deal with through the design and construction phase, as opposed to the usual two or more under the conventional contractual method. Figure 23:5 shows this contractual relationship.

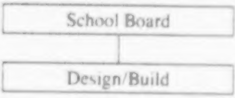

Figure 23:5 Design/Build Relationship

The design/build contractual method is defined as a situation where a group of professionals such as architects, engineers and others join the builder in the formation of a team that will provide to a school district all of the services from design to construction. Each team interested in a proposed capital project is invited to submit a cost bid to design and construct a building based on the educational program and criteria promulgated by the school district. Each team then submits to the board of education a preliminary design and construction cost estimate to complete the project. The board of education then selects one team for the contract based on both design and costs.

At initial consideration this contractual method may seem to offer school districts several advantages, but caution must be exercised before such an arrangement is completed. Pursuant to state statutes, there may be a question regarding the legality of such a procurement method.[32] Some school districts are required by law to award a construction contract to the lowest responsible and responsive bidder following a period of competitive bidding. Such a provision may preclude a school district's entering into this type of contractual relationship. Some school districts have the ability to secure such services through a process called competitive negotiations. Competitive negotiation allows a school district to choose a design/build team based on successive competitive negotiations with several qualified firms. Obtaining the services of a design/build team may well fall into that category of service procurement; however, the school district should obtain an opinion from the Office of the Attorney General regarding the legality of the contract before entering into such an agreement.

Design/build requires a great deal of expertise on the part of the school district staff to properly evaluate the design and cost proposals. Almost all of the school districts throughout the country lack this type of expertise to complete the evaluation, let alone the monitoring of the project through the design/build stage. Unless the school district already has the necessary skilled personnel on the staff or is prepared to augment the staff with outside expertise, the school district is probably well advised not to attempt to enter into such types of arrangements.[33]

Construction Supervision

When a capital project of any scale is under construction, the school board needs to have the project proceed in an orderly and timely fashion with the assurance that all contractual documents and building specifications are met. The periodic supervision and interpretation of the contract documents, usually furnished by the architect, does not ordinarily provide the daily inspection of construction that fully protects the owner's interest. A *clerk-of-the-works* or owner's supervisor, well qualified to inspect the work in progress, should be selected prior to signing the construction contract, and the status of this position should be defined in the general or special conditions of the contract.[14]

Continuous inspection is the only way to observe the quality of work in a construction project and assist in correction of inevitable problems. Without such inspection, no one can verify that the contract documents are being fulfilled.

Under the standard AIA contract, the architect is not responsible for exhaustive continuous inspection unless provided by agreement in the contract.[15] The amount of the fee allocated to construction administration is not sufficient to provide this service. Therefore, the board of education is required to pay the salary of a full-time, on-site owner representative. On small projects, some member of the maintenance staff may act in this capacity.

The primary function of the clerk-of-the-works is to understand the contract documents, be aware of the construction schedule, observe the work in progress and ensure that the architect's representative is on the premises at the proper time and that necessary inspections are conducted. This person should maintain records of working documents and specifications, correspondence, conferences, original contract documents, addenda, change orders, supplementary drawings and keep a log book recording all daily activities including weather and personnel on the job. Any discrepancies observed in work performed should immediately be reported to the architect and entered in the log. It is important that the owner's representative understand the limitations of the authority of this position and that this supervision is only a supplement to the work of the architect's employees. The clerk-of-the-works is not authorized to make any decisions concerning the design or construction of the building.

Planning for Occupancy

A great deal of work goes into the planning, designing and construction of a school facility by various groups and individuals, and yet it is the staff of the school organization that makes the building really work. Therefore, it is imperative that the teachers and classified staff of a new or remodeled building be oriented to how it operates.[16] Not only does an orientation serve to introduce the staff to the physical features of the building, it brings a closure to the teacher and staff involvement in the planning process. Ideally, teachers and administrators are involved in helping to formulate the scope of program that will be carried on in the new or remodeled facility. In fact, some of those who were involved in the initial planning may be assigned to the new facility. Thus, some individuals who may have been involved in the first part of the planning process are then involved in the orientation program for moving into the actual facility. People who are expected to work in a new facility should know how it operates (where certain facilities are, how the new technology functions, how the structure is expected to respond to the educational program and what the health and safety features are).

The educational planner who took the lead in the school planning effort should also exert leadership in orienting the staff. Others involved in the planning and execution of the orientation program should be the principal of the school, the educational consultant and the architect. Inasmuch as the orientation needs of the teaching staff differ from that of the classified staff, the orientation effort should have several focuses. The Council of Educational Facility Planners International suggest that orientation programs should consist of, a user orientation program and a public information program.[37] The former is devoted to helping those individuals who will work within the facility become familiar with how it operates. The latter is designed to promote the idea of the school building as a community resource.

Staff Orientation

Orientation programs for teachers may take a variety of forms designed to enable them to understand the functioning of the building and how it supports the educational program. These activities may include: building tours, in-service sessions with fellow educators, mock fire drills, discussions centering on floor plans and question-answer sessions with the architect. Orientation sessions for the classified staff may take a similar form, but the content will be directed more to how these service providers perform their job functions within the new facility.

It is very important that the custodial staff and individuals responsible for the HVAC system thoroughly understand the workings of the system. Many times the firm that supplied the HVAC system will conduct orientation sessions with the staff and in some cases the firms have been known to take the building engineer to the factory for an intense orientation in the operation and maintenance of the system.

Public Information Programs

Public information programs are designed to let the community know what they bought, how they too can use the facility and encourage them to use it. Whatever the format, this program should serve to bring closure to the minds of the community with respect to the planning/constructing process. The activities which can be considered include: a building dedication, an open house, student orientation, building tours for the community, media publicity and various printed materials.

Post-Occupancy Evaluation

Following the successful occupation and orientation of the completed facility, a post-occupancy evaluation by educators is highly recommended. There is a temptation to neglect this activity because usually the facility is working well, many individuals perceive the project to be completed and there may not be very much thought about what contribution such an evaluation could make to the next capital project. The data obtained at this time can be critical to future capital planning efforts. If it is not collected in a timely and organized fashion, it may never become available.

There are two things that need to be evaluated at this time—the product and the process. The product of the school planning effort is the building itself, and the process is all the activities of the many persons and groups involved in planning and constructing the facility. Both product and process are legitimate subjects of evaluation.

Process Evaluation

Immediately following the occupancy of the facility, the process used in planning the facility should be evaluated while it is still fresh in the minds of the individuals who participated. Effective evaluation helps to correct problems and ensure a better process and involvement in the next capital project. People and agencies involved in the process should be surveyed to determine their perception of the success of the process and how they feel it should be improved in the future.

There is no standard form or method of obtaining data regarding involvement. The educational planner can prepare an instrument tailored to the area and reflect the planning process used in the school district. A questionnaire can be completed by the participant, or interviews can be used to collect data, if there is sufficient resources. Data desired deals with what people feel their contribution was to the project, how other groups and individuals contributed and whether the process was conducive to good planning as they understand it.

Product Evaluation

Evaluation of the building itself involves determination of how it operates, how it supports the educational program, how much it costs to operate the facility and whether the school district got what it wanted. The evaluation's form can vary according to the data desired. There should, however, an attempt to collect more than just the quantifiable data associated with square foot ratios, costs per square foot, cost per pupil, square feet per pupil, life-cycle comparisons, construction time, number and amount of change orders. The evaluation should also gather data to assess such things as architectural and educational innovations and the impact of various design features on the educational program and student movement.

The board of education will need to develop and finalize the evaluative system, develop proper instruments to gather data, identify persons to gather data and identify persons or agencies to receive the evaluative data. Of course, the purpose of the evaluation must be identified and approved as the first step because only from those goals or purposes can the needed data be determined and its use be established. The board of education also needs to determine how often and when future evaluations will occur.

Maintenance and Operations

Operations Procedures

Regardless how well conceived and constructed the facility might be, unless it is kept clean and in good working order, the facility will not effectively support the educational program. A clean and functioning school building is extremely important to the success of the educational program. All of the successes in planning and designing a school facility are overshadowed by poor housekeeping.

The maintenance and operations staff of an entire school district is usually headed by one individual. Depending on the size and complexity of the particular school district, the person who heads up this staff might be either an executive director, director or supervisor of maintenance and operations reporting to an assistant superintendent for operations or support services. In small school districts, the school business administrator may have responsibility for supervising this department along with others. Regardless of the organizational structure, the purpose of maintenance and operations services is the same—keeping the facilities clean and in good repair. The operations staff of the school district seeks to keep the facilities as clean as possible. Efforts of maintenance staff, on the other hand, are directed at keeping the building functioning. These services can include routine and emergency repairs, scheduled preventive maintenance, painting and other work that will enable the teaching staff to have an environment that is healthy and in working order.[38]

While most school building administrators do not directly manage the building's custodial program, they are ultimately responsible for the cleanliness and well being of the facility they administer. The building administrator must make certain that the building is clean and in good working order; however, the administrator may not be knowledgeable about the technical details of how the custodial staff should do the work to clean the building.

Roles and Responsibilities. The line of authority and responsibility for the custodial staff of an individual school building is usually shared between the principal and the school business administrator of the school district.[39] The dual nature of authority/responsibility of the custodian lies in the fact that he or she is hired and trained by one office of the district to do a service for the staff of an individual school building that has a principal who is responsible for all activities within the physical structure. The principal of a school is normally in charge of all programs and personnel within the building, or, as is commonly stated, the principal is responsible for "everyone under the roof of the school." Because of this authority, all personnel who work in that building are under the direct supervision of the principal. Thus, the principal supervises the work of the custodial staff to the extent that all custodial work must be acceptable to the principal. At the same time, the custodian is directly responsible to the school business administrator's staff. The custodian is in direct line of authority from the supervisor or director of custodial services. This relationship is illustrated in Figure 23:6.

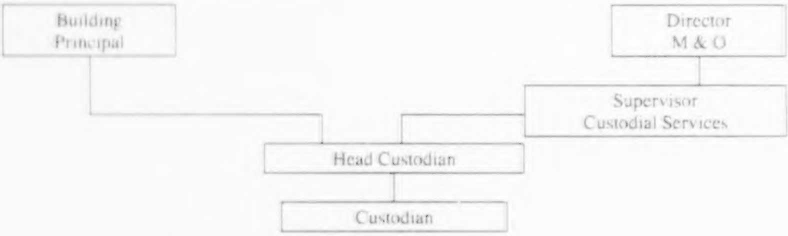

Figure 23:6 Principal-Custodian Relationship

Custodians are responsible to the local school building principal for the following:

- Ensuring cleanliness of all aspects of the building and grounds.
- Maintaining the proper environment which includes temperature control, ventilation, building safety and healthful conditions.
- Scheduling all custodial activities so as not to interfere with educational and related activities and making the school and its facilities available as the principal directs.
- Cooperating with the staff to achieve the purposes of the school.[40]

It is important that a good cooperative working relationship exist between the custodial and instructional staffs for the successful operation of the school organization. This relationship must be characterized by each staff respecting and supporting the work and responsibility of the other, and recognizing that both staffs are working toward the same goal—effective education of students. Custodians and members of the cleaning staff are employed by the school district and are assigned to various locations. They are trained by a central administrative officer or staff in a prescribed method of cleaning and operating the school building, and their technical expertise is supervised by this staff. Therefore, the local school building custodial staff members are responsible to the central staff for the following activities:

- Carrying out established system-wide procedures and standards of performance.
- Operating equipment and machinery of the capital plant of the school.
- Taking the necessary steps to protect the building and equipment of the school system in case of emergency.[41]

Qualifications. The key to clean and good working facilities is to have high caliber, efficient custodial staff who perform quality work. Just as teachers and administrators should possess qualifications for their respective positions, the custodian must meet certain qualifications. These qualifications might include:

- Good health and energy with no physical defects.
- A high school diploma and be able to read and write sufficiently well to understand written and oral orders.
- A neat appearance.
- Dependable and orderly work habits.
- Ability to get along well with people and have respect for children.
- A willingness to learn.
- A degree of maturity to be able to work around children (with a minimum age requirement of 21 years old).
- A good character.[42]

The above list of qualities are minimal requirements. The school custodian's position is a demanding one and should be occupied by a person of the highest possible qualifications. By demanding more of applicants, the school district will in effect obtain better employees.

Although a person meeting the above qualifications might command a salary higher than what a school district may be able to pay, there are other benefits that a school district can offer prospective employees which more than compensate for the differences in salary. The retirement system of most school districts is much better and more reliable than what is available in industry for the time spent in the job. Additionally, the other employee benefits are at least equal to what the private sector offers. A very intangible benefit, but one that perhaps far outweighs the rest, is the pleasant surroundings in which the custodian works and the prospect of building good working relationships with a variety of employees over a period of years.

Training and Orientation. Once a person has been employed by the school district to perform custodial duties, sufficient training and orientation should take place so that the person can perform efficiently. No matter how well qualified a person might be, that individual needs to be trained in the methods and procedures of the particular school district. This training is usually conducted on a districtwide basis by central administration staff.

The type of training offered new custodial workers varies from school district to school district. Such training may be as simple as a few verbal instructions to a more elaborate pre-service training program of several days conducted by larger school districts. In some instances, state departments of education have conducted custodial training in areas of the state that might benefit from such services. Because of the indigenous nature of the custodial work, the most effective programs are those that are directed to the needs of the local school district. Regardless of the size of the organization, however, the new custodial worker needs to learn the methods of cleaning preferred by the school district, the schedule of work at a particular station, the responsibilities that will be expected of the worker and the level or quality of work that will be expected. Such minimal pre-service training should at least enable the worker to begin work immediately and effectively. Custodial workers should never be allowed to learn on their own or to find out how to do the job themselves. To let his happen invites unmet performance standards and a sense of failure on the part of the employee.

If a school district does not currently have a pre-service training program for new custodial workers, one needs to be established. Several avenues of assistance are open to a system that desires to establish such a program. Commercial concerns that manufacture custodial products are a good source of assistance in training to use their products. Neighboring school districts, especially larger ones, are an excellent source of assistance. In some instances, the person responsible for training custodial workers in a large school district is permitted by the superintendent to conduct pre- and in-service activities in neighboring school districts, thereby establishing a uniform training program for the region.

Pre-service training is never enough to ensure competency over a long period of time. The school district should plan for a systematic in-service training program for all custodial workers employed. New methods and products for cleaning should be introduced at these sessions that should be mandatory for all staff members. These in-service training sessions should not only be limited to cleaning methods and products, but also cover a variety of topics and concerns designed to help the custodial worker become an effective member of the organization. The results of such training will improve service and overall building operations, and as well as boost the morale of the entire school staff.

Oversight and Evaluation. In large school buildings where there are several custodial workers, one person is normally named as the head custodian. This person usually organizes the work force and schedules the activities. The head custodian makes certain that all the tasks necessary for a clean school are discharged in accordance with the staff available and that all of the activities that take place in the building are covered where necessary according to school district policy. Although each school district organizes the custodial program around the needs of the particular organization and available resources, local custom and union agreements often are controlling factors in specific work agreements.

The building principal should periodically review the work schedule of the custodian(s) who are assigned to the building to make certain that all tasks are covered and assignments are made to ensure a clean facility. If changes are needed in the schedule to improve the routine, the principal should confer with the director or supervisor of custodial services for the school district so that the latter can take appropriate action to improve the service.

The evaluation of custodial workers is usually done by the head custodian and by the director or supervisor of custodial services. The principal of the building to which the custodian is assigned has an input into the evaluation process, but the final evaluation is completed by those persons who hired and trained the custodial worker. Evaluation of custodial staff is usually on an informal basis, but in some larger school districts, formal evaluative procedures and forms are used in a systematic evaluation program.

The Maintenance Function

Every school organization has some system for completing repairs and minor improvements to school building. Such activities are usually the responsibility of the central maintenance staff. This staff provides necessary services to the local building principal beyond the normal scope of work of custodians. These services include: routine and emergency repairs, scheduled preventive maintenance, major and minor renovations, and up-dating of facilities for teaching needs such as installation of chalkboards, shelving, new lighting and plumbing.[43]

The maintenance program is administered from the central administration office under the supervision of a person usually titled director or supervisor of maintenance. This person is augmented by an office to handle maintenance requests and a staff of trained persons representing various crafts and trades. The size of the staff and the number of crafts and trades represented vary greatly from one school district to another. Obviously, the larger the school district, the larger and more diversified is the maintenance crew. Small school districts on the other hand, usually have limited maintenance staffs and contract outside of the school district for difficult repair jobs. Many school districts find it more economical to contract larger maintenance tasks to outside agencies and employ a small maintenance crew to perform smaller services. Each school district, however, determines the best process and staffing configuration to take care of both large and small maintenance needs.

Requests for repair work or building improvements are channelled through the principal's office and forwarded to the central maintenance department. Each school district has forms to be used for requesting such service. These requests are prioritized, screened for budget resources and assigned to a crew for completion. Each crew documents to the central maintenance department that the work has been completed. Through a feed-back system, the principal of the building is notified of the disposition of the particular item requested.

In addition to requests from principals, the maintenance department initiates requests following inspection of the facilities. Such requests typically focus on technical details which an educator might overlook, such as the condition of the boiler or the roof. These inspections are usually conducted on an annual basis, although some school districts conduct inspections more frequently. Occasionally, special inspections for internal maintenance items are conducted at certain times of the year. Additionally, the daily inspection of the building by the school custodian should also serve to identify needed repairs and building improvements.

The maintenance items identified through such inspections fall into two categories—small items that the school district personnel can complete and large items for which the school district does not have the in-house expertise. Examples of the latter category include boiler replacement, new roof installation, removal of an interior wall or up-grading rest rooms. These items are then included in the CIP of the school district, funded under the capital budget, prioritized according to local needs, and completed through outside contracting.

Preventive Maintenance Programs. The preventive maintenance program is a regularly scheduled plan to extend the life of each piece of major mechanical equipment and to preserve the physical properties and function of the building itself.[44] Under this type of program custodians and maintenance personnel inspect and service all mechanical equipment on a regularly scheduled basis to prevent any cause of shut-down. Likewise, periodic inspections are made of the building structure to determine wear or faults that need to be corrected at their initial stage. A preventive maintenance program is developed by the central administration staff for every facility in the school district in conjunction with architects and engineers. Naturally, the best time to develop such a program is during the design and construction stage of a new facility. Undoubtedly, most school districts need outside assistance to develop such a program which would encompass all buildings, but the savings in cost of future repairs and shut-downs more than compensate for the cost of developing such programs.

Energy Management Monitoring Systems

Some school districts have developed energy management monitoring systems that use a computer to centrally obtain data on various aspects of building environments to control costs of energy. Such systems monitor the building temperature, outside air, intake air temperature, output of the heating plant, speed of fans and other similar components in order to provide a central office with a composite look at energy consumption at any particular facility.[45] By centrally monitoring the HVAC system, appropriate measures of control can be exercised for a system disfunction. In some instances, corrections can be made to the local building heating and cooling system by the central computer, eliminating the need to send a maintenance crew to the building. Of course, such corrections are limited to adjustments to those components under surveillance, but the computer can immediately call attention to any condition that cannot be corrected through computer intervention and that needs personnel to go to the scene to repair or correct a piece of equipment or building feature. As the availability of such technology increases and the cost is reduced, even small school organizations will utilize such systems to control energy use and subsequent cost.

Role of Maintenance and Operating Staff in Energy Conservation

An analysis of the services of the custodians and maintenance personnel indicates that the primary function of custodians is cleaning and that of maintenance personnel is repairing and maintaining. The duties of custodians may overlap with maintenance personnel as the first line of defense in energy conservation and in preventive maintenance. Custodians thus may make observations about the wear, adjustment and regulatory levels of equipment, make minor adjustments and report needs for further services required of more skilled personnel. Regardless of the division of work between the custodial and maintenance staffs, the efforts of both groups as related to energy conservation practices involve four functions: observing, cleaning, repairing and measuring.[40]

Custodial personnel should be trained to constantly observe the working of the facility. The custodian should observe such things as the operation of thermostats, water faucets, toilets and closing mechanisms. The custodian serves as the eyes and ears for the principal and maintenance staff for the safe and efficient operation of the building. From this observation, the custodian can determine whether the condition can be remedied by the school custodial staff or whether the maintenance crew must be notified. In order to conserve energy, it is important that the custodian be trained to observe conditions of the building that would needlessly use energy. In the daily rounds of cleaning the building, the custodian should observe and check each functioning part of the environment to make certain that it works. Custodians should recognize that by keeping the building, lighting system, equipment and filtration system clean they are helping to conserve energy.

While custodians should have some knowledge and skill concerning minor repairs such as thermostats, door controls, lighting fixtures, plumbing fixtures and flushing mechanisms, the custodian should not be responsible for repairs which normally fall under the responsibility of the maintenance crew. Consequently the custodian must be able to distinguish between those things that fall under his or her responsibility and the duties of the maintenance crew. Regardless of the policy and division of labor, a custodian should be capable of making those repairs that will help the building to continue to function efficiently and not waste energy.

Normally custodians do not assume responsibility for measuring such things as the consumption of energy, but in the present environment, custodians should be trained to take measurements in order to provide a data base for energy-use decisions.

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24

The Political Economy of Education Finance: Legacies of Largess Lumbering Toward an Uncertain Future

Maureen W. McClure

A classic television commercial opens on a scene of elegant calvarymen directing cannonfire confidently into the smoky distance. Suddenly, out of what appears to be a successful silence, a tank roars out of the haze, hurling the horsemen into disarray. A voiceover inquires if the viewer, too, is fighting tomorrow's battles with yesterday's technology. Perhaps education's financial policies are lumbering toward the future on horseback with cannons. Structured to meet the demands of a growth-oriented post-war economy without many competitive demands, they, like their private sector bureaucratic counterparts, may be ill-equipped to meet the challenges of a highly competitive, global, service-based economy. What fate faces the nation's public educational finance systems as regions improve their global-market competitiveness or risk their future tax bases?

The future of educational finance is intimately interwoven with the future of the American economy. Educational institutions are likely to be affected by structural changes in both regional and national economies over the next two decades. Changes in demographic structures, slow economic growth, a move toward a service economy, increased capital velocity and globalization of the economy through advanced technologies are likely to have long-range effects on tax bases, demands for public services and financial policies for schools.[1]

Some of these shifts will erode education's public financial bargaining leverage. An aging population means fewer households to receive direct benefits from education. Those households with children in school will be poorer and less well organized politically.[2] Labor market competition in a global economy will challenge American educational policy makers with international achievement comparisons.[3]

Many of these shifts have uncertain outcomes. Are the declining returns to educational investment due to a permanent or temporary oversupply of educated workers?[4] Will lower wages become the norm of a service-based economy that lowers job skill requirements?[5] Will the demands of this new economy erode both the American middle class and its tax base, creating two-tiered wage structures?

The rapid development of technology is also altering the organizational structures of education, with long-term financial consequences. Telecommunications technology can now support rapid transfer of capital internationally, contributing to the globalization of the economy. This process is increasing levels of uncertainty in the immobile tax bases that generate revenue for school districts.[6] Within districts, computer networks are opening new levels of access for professional decision making.[7]

This chapter sketches some possibilities and suggests areas for potential policy research. While diverse interpretations of these forecasts exist, there are common threads for debate. This argument recasts traditional educational finance questions into three interacting perspectives: revenue generation, allocation systems and delivery systems.

First, the future of education finance is closely linked to "tax-base-to-tax-base investment cycles." Over the next decade, revenue-generation policy will examine questions and issues created by interest in regional and national economic development.[8] Increased competition for increasingly fluid capital leads away from the perception of tax resources as patronage for redistribution and consumption toward a refocus on public investment for economic development.

Second, political and economic allocative systems differ in response time, leading to sectoral slippage. When the actions of one sector impose nonreimbursed costs on the other, negative externalities are created.[9] These actions can generate slippage between sectors, resulting in unintended negative consequences for either sector. Attention to slippage should become a major priority for those in education finance over the next decade. Since political markets often lag behind economic ones, educational policy generally reacts to economic change. Education finance policy is currently most concerned about the distribution of existing resources.[10] Current school reform efforts are not assuming a leadership role in shaping a national economic transition period.

Third, the development of technology is rapidly generating more complex organizational structures, causing the likelihood that organizational slippage will increase. For example, the traditional, centralized public bureaucracies which monitored education in the past may prove less cost-effective in the future than decentralized, computerized networks that link field professionals more directly.

Emerging technologies also allow for a reorganization of existing educational delivery systems. The cost-effectiveness of new, technologically based organizational structures has not yet been measured. Technical systems may provide creative alternatives to the traditional dilemma of centralized financial support for "fund and trust" professional structures *versus* regulatory structures.[11]

Those who observe, record and manage the financial machinations of educational institutions may find that the professionals of the future may require very different sets of skills than those of the past. Over the next decade, education could assume a leadership role in structuring high quality, customized services that would serve as models for a post-industrial, service-based economy.[12]

Background: Roots of Current Financial Rigidity

In a growth environment, political cycles can be endured. Educational professionals whose careers depend on the allocative agendas of elected officials can provide cyclically appropriate justification for policy.[13] Thus, in periods of tax surpluses, social agendas emphasize equity among constituents. As resources become more difficult to distribute, social agendas turn to values of efficiency and excellence. The vocabulary of inclusive opportunity at the peaks changes to exclusive standards in the valleys.

Though federal funding levels have generated only a small fraction of total district expenditures they have wielded a strong influence on both state agendas and district practice. National reports such as *A Nation at Risk* have leveraged major policy discussions.

When those reports were tied to other popular federal agendas the effect was even more pronounced. In the late 1950s, education finance rolled up with the military's Sputnik scramble through NDEA (National Defense Education Act) and NSF (National Science Foundation). Policy makers tied funding for science and engineering training to national defense interests. In the 1960s, financial policy cashed in on Johnson's "war on poverty" by linking compensatory education programs for disadvantaged children to urban blight solutions. It was a time for justice and equity, buoyed by budget surpluses and an attentive judicial system.

As the costs of the Vietnamese war intruded on the expensive poverty war, however, the limelight turned to state legislatures which had solid records of commitments to education, powerful union lobbies and budget surpluses unencumbered by the logistical expenses of offshore battles. By the mid-1970s, equity issues focused on state financial funding formulas and the interests of "special needs" children. Relatively full state coffers also supported judicial claims for "wealth neutrality" and "thorough and efficient" educational systems to provide opportunity for all children.

Unfortunately, the largess that attended to "needs" independently of projected future costs began to evaporate with inflation in the late 1970s. By that time, however, cumbersome regulatory structures had grown up around local schools connecting them to external state and federal revenue flows. The regulation costs of monitoring and compliance devoured enormous pools of tax resources. For example, some states added an intermediate layer of administrative overhead between the state education department and school districts primarily to monitor compensatory, vocational, special education and other categorical and entitlement grants.

The tax surpluses of the 1960s, the optimistic revenue projections of the mid-1970s and their consequent allocative indiscretions met declining enrollments and overly rigid budgets in the late 1970s and early 1980s.[14] In many school districts, budgets are committed at levels well above 90 percent including labor contracts and fixed costs overhead.[15] Unfortunately, it would take an unprecedented economic growth spurt to thaw many of the school budgets that are grossly overcommitted, leaving few discretionary resources to invest in reform.

With few discretionary resources for investment, the long-term prospects for reform are dreary at best. Political bargaining leverage has eroded, taxpayer resistance increased and the stench of low morale in aging faculties has left many districts increasingly unable to organize their programs to increase their cost effectiveness. Hence it is predictable that current reform efforts are moving away from "add on" and "pull out" programs for the "special" children of the 1960s and 1970s, and moving instead toward "turning the tide" for the average child, now portrayed as mediocre. The moral trumpets of excellence blow siren calls through the sluggish economic winds of the 1980s.

These reforms carry a tacit assumption that organizational restructuring is necessary to free up discretionary resources for reinvestment.[16] If the relatively mild restructuring efforts of career ladders, merit pay and dismissal of incompetent employees do not create sufficient "slack" to thaw budget rigidity, more radical restructuring efforts may become more politically viable during the 1990s: tuition tax credits, moves toward contracts instead of tenure, fees, decertification, different types of vouchers and other moves toward the privatization of education benefits.[17] Even these more radical moves, however, may prove to be less effective at freeing discretionary resources than a structural reconceptualization of education as decentralized, professional services.

Reform for tax base regeneration will not come easily. Allocators in educational political markets not only tend to ignore future economic downturns in their decision-making processes, they tend to view allocative resources as consumer or patronage goods to be distributed to worthy constituents. A producer or investment perspective will be required to coordinate cooperative efforts for both regional and national economic development.

Investment Cycles

In the past, educational finance has not been closely coupled with tax base regeneration. Indeed, the literature linking education and the economy has generally ignored a direct tax base connection, focusing instead either on returns in the form of wage income or returns measured by the gross national product. While these analyses are interesting and useful to policy makers they tacitly assume a common tax pool. While this assumption holds in those countries which rely on wage income for their tax base and which allocate educational resources federally, it is less helpful in a nation with the highly decentralized, relatively independent local tax pools that still form much of the revenue support for schools.

While income generation increasingly contributes directly to school tax base support, property taxes still represent a substantial portion of the tax pools for revenue generation, primarily at the local level. The value of that property is closely tied to the economic climate of the region. While state level tax pools extend beyond some regional boundaries most states are enveloped by larger regional economies and their potential tax bases.

Over the next decade it will be increasingly important to recognize that the fortunes of school districts are intimately tied to the health of their regional economies and their tax bases. One can monitor tax base regeneration by tracking a "tax-base-to-tax-base investment cycle." In this model, tax capital flows from a base into an allocative body such as a school district or state legislature. From there it flows through administrative mechanisms to direct delivery services, where resources are invested in students. These students eventually take their investments into the economy in the form of "human capital" where their actions will affect the tax base, either positively or negatively.[18]

The tax base of origin, however, is not necessarily the tax base of return. The mobility of human capital investment does not always synchronize with place-bound tax base investments. Communities facing substantial immigration receive subsidization from the human capital investments of their economic competitors. Communities facing substantial outmigration may be subsidizing their own economic demise through continuing public educational investment.

Increases in human capital migration across regions challenge the present form of educational funding tax pools. The federal income tax generates the highest yield, the state taxes often supersede local yields, leading to an upward drift in tax yields. Education, however, has been primarily funded by property taxes which tend to be less elastic than the primary taxes of larger forms of government. When local districts began to move "upward" in their search for import capital to support their growing systems, they sat down as latecomers to the more lucrative federal bargaining tables.

While this by no means explains the low priority given to education at the federal level, it indicates the need for further research into the connections between current educational reform movements and the development of the American tax structure. Local support of community schools through propery taxes assumed a positive net future return. Will this cornerstone of education finance remain as a valid assumption in ten years?

Each point of resource transfer in the educational investment cycle, like all investments, involves some level of risk and some level of return. In the future, the education finance literature will want to track both public and private educational investment cycles more carefully to determine if allocative policy intent was matched with outcomes. Such studies, however, would require comparable financial data across regions. These data do not currently exist.[19]

In the past, those allocating resources to education have not often formally considered public dollars investments in the economic well-being of the future's tax base. Standards for return, periodic reviews and data collection for evaluation have not often been at the focal point of legislative decision processes. The neglect of these procedures has led to allocative choices which discount the future effects of policy on longer term economic growth.

Most voters and financial policy makers have insufficient information to determine the true prices of their choices. If voters prefer board members who keep local taxes low, politicians will perceive rationality in efforts to restrain local spending. These decisions could also be rational for economic development if the voters are fully informed about the consequences of their preferences. If, however, short-term voter preferences impede long-term economic growth then a slippage occurs, creating a rational short-term political choice and an irrational long-term economic choice.

For example, if low taxes generate a mediocre education for children who eventually work in jobs which require few literacy skills but, because of union efforts, pay well, then it is unlikely that a serious lack of educational skills will be publicly perceived. If, however, a competitive service-based economy cannot support high union wages, leaving the next generation of children to their own entrepreneurial devices, then an education which does not include these skills will have long-range economic and political consequences. If large numbers of the next generation eventually produce lower lifetime earnings, then even a highly progressive federal income tax will not stem the erosion of local property tax bases.

Unlike traditional business cycles, structural change measures "permanent" or long-range effects. A recessionary cycle implies a recovery; a structural change implies neither recovery nor inevitable progress.[20] The competitive development of technology creates winners and losers. The regional winners of one generation could become the losers of the next. The factories of England once sparked and fueled both the Industrial Revolution and an economic empire. Today that torch barely glimmers in Britain, glowing more brightly in the Pacific Rim.

Jobs are created and destroyed as capital flows from one industry, service, region or nation to another. The deindustrialization of previously wealthy regions or nations may mean the development or progress of previously poorer regions or nations. These changes have major consequences for land-locked school systems that rely on the health of regional and national economies for their tax bases. The increasing globalization of the economy and technical development have created increased "capital velocity."[21]

This increased capital mobility leads to greater systems uncertainty. District taxation power which generates from a locational monopoly can erode with capital flight, increased demand for other public services, increased demand for private sector investment incentives and increased taxpayer resistance. Even districts in regions of rapid growth may find themselves in stiff competition with demands for capital works projects: transportation, sewage, water and other utilities. In the future, professionals will face more acute competition both from other areas of public concern and from the private sector. All sectors will have to design new sets of cooperative and competitive investment strategies for long-term regional and national economic survival and growth.

Allocative Systems: Slippage and Uncertainty

Many allocative decisions made within the context of public schools are created within a political context. A short-term, patronage perspective of allocation supports "current muscle;" those organizations that have access to financial backing and/or votes. Actors in both political and economic education arenas discount the impact of their decisions both on each other and on the future, especially over the longer term, because both voters and taxpayers respond to short-term incentives. A patronage perspective, for example, increases the likelihood of slippage if it sacrifices long-range economic development to short-term political demand, especially if today's worthy constituents are tomorrow's dinosaurs.

Education is a relatively minor political and financial agenda at the national level. It is, however, the major player in most states. In a cylical upswing, there is room for a wide variety of distributive agendas. In a cyclical downswing, however, the decline in allocative resources will not be absorbed evenly across agendas. Given a patronage perspective, one would therefore expect declining federal support for education and increasing state support of education, regardless of the political party in office or the consequences for economic development.

A large middle class with children in school helped militant teacher unions to develop into key political actors during the last two decades. Consequently, teacher unions were able to pass favorable regulatory legislation in many states during the late 1960s and early 1970s. Over the next decade, the political representatives of an aging population in a transitional economy will begin to reassess that legislation in light of its impact on their concerns.

In Pennsylvania, Act 195 of the state code carries no stiff mandatory penalities for either side in a strike. While these efforts have helped unions increase previously low wages, Pennsylvania developed one of the worst strike records in the country. Entrepreneurs and executives claimed they were reluctant to move to an area which might threaten their children's future college placement. The state was not on the final list for GM's Saturn plant.

Noncompetitive financial policies created by past public educational legislation appear to have generated slippages that impede cooperative efforts for economic development. The political expectations of a more prosperous past have become the contractual overcommitments of the present. Together with an aging political leadership socialized in a different fiscal environment, this legacy acts to limit the potential for reform. Reform may be least likely to succeed where it is most needed.

If school districts, like people, have most of their income "encumbered" in the form of mortgages, interest payments and contractual obligations, there will be few discretionary resources which might be invested for future returns. Increased system uncertainty will put even those small amounts at risk. If districts can plan on a steady income or cash flow indefinitely into the future, they will not perceive risk to be a problem that requires formal attention. If, however, future cash flows allow districts to meet their contractual obligations and little else, district quality will stagnate. Slow growth tax bases will leave school districts with few discretionary resources to invest in promoting their credibility to increasingly resistant taxpayers.

The education finance professionals of tomorrow will be required to place policy into a complex context of competitive regional economic development. Unfortunately, relatively few senior professionals were trained with these skills. The managerial expertise required to build institutions during periods of unrestrained noncompetitive growth can actually impede the management of systems facing increased competition for capital import. Investment in staff retraining and the development of new education finance certification requirements will be an important area for future policy research.

Increases in uncertainty and risk generate real costs for schools. On the revenue side managers can make accurate projections more easily in a predictable growth economy, because the operating assumption of tomorrow is more. Cash flows are more easily disrupted in a steady state or slow growth environment where inflation may exceed growth in property values and income. New real estate development, in- or out-migration, plant relocations or new job formation in low-wage services can also create instability in anticipated revenue projections.

On the expenditure side, lack of resource control also generates increased risk and uncertainty. For example, districts which are required to provide a "least restrictive environment" for some without appropriate compensation are often left with the choice of providing adequate services for some children at the direct expense of others.

School financial policies infrequently formally anticipate cyclical shifts in the economy beyond annual revenue projections. These changes, while they are occurring more gradually, nevertheless have cumulative effects. School districts, state and federal policy makers and reformers have not formally accounted for business cycles in their financial policy impact statements, assuming linear growth instead. Indeed, routine financial impact statements that measure the effects of proposed policy changes on school sites have not yet become standard operating procedure.

In addition to regular business cycles, economic structural shifts will open increased opportunities for risk and uncertainty. A school district's revenue generation risk factor will thus increase, even if it is a sunbelt district currently experiencing relatively rapid growth. These increased risk factors can be formally recognized by school districts through an "expected value" technique which multiplies anticipated revenues by a probability of occurrence.[22] Districts and their regulators could calculate a range of risk factors to accommodate for alternative scenarios. These subjective probabilities would be derived from both past data and present professional judgment, subject to annual review.

A district would incur no contractual obligations beyond a given percentage of the most conservative expected value of anticipated revenues. Districts pushed past that point by uncompensated regulation might refuse compliance on the grounds that the costs of regulation jeopardize the district's financial stability and its consequent ability to provide an adequate education. In contrast, if additional revenues accrued to the district beyond the cutoff they would be considered discretionary resources for investment in local school reform efforts.

Increased system uncertainty is likely to lead to foggier futures, shorter planning horizons and an increased probability of slippage. In a stable, growth economy, school districts can make relatively accurate projections with relatively unsophisticated techniques. Education finance professionals in the next decade will face requirements for more sensitive revenue forecasts and budget processes which formally reflect uncertainty and measure the financial impact of regulatory policy on the adequate provision of education at school sites.

Delivery Systems: Bureaucracies and Professionals

Public educational systems are vulnerable to structural change. They tend to be place bound and dependent on a tax base formed from relatively rigid political boundaries. They cannot move to follow shifting economic prosperity. Since most education takes place in the public sector, few schools are able to accumulate financial endowments. Overregulated, with few discretionary resources to invest in change or reform, they are becoming victims of their past bureaucracy-building successes.

In this century public schools have developed from a system of highly decentralized, locally funded institutions into complex structural bureaucracies.[23] Today's public and private schools are interwoven with layers of financial support and regulation from state and federal governments.[24] In the past, much of the work done by education finance professionals has been directed toward the growth and maintenance of these bureaucratic structures. Increasing competition for public investments requires an assessment of the costs and benefits of the organizational edifices created by the past so that their future appropriateness can be projected.

The organizational structures of the twentieth century have been large bureaucracies, both public and private. They are becoming increasingly obsolete because of their high operational and monitoring costs, their internal rigidity, their lack of creative entrepreneurship and their inattentiveness to client or customer concerns. They may have been the effective instruments of a mass-production past, but will not necessarily be the most effective competitive tools for a service-based economy which relies on responsiveness and individualization.[25]

Some private American corporations, like Xerox, have begun to streamline their levels of management to compete with Japanese firms. They can have fewer than one half of the typical American firm's reporting levels. While slow, cumbersome bureaucracies can provide great stability under conditions that are reasonably predictable, the more "turbulent" the economic and political environments, the less flexible and responsive they become.[26]

American education professionals may also find themselves dismantling the intricate, bureaucratic structures so carefully constructed by reformers during the post-World War II era. A slow-growth economy will require school districts to develop more sophisticated sets of "customer oriented" strategies to maintain their credibility in increasingly competitive markets for tax dollars.

Large educational bureaucracies, particularly at the urban and state levels, suffer from scale inefficiencies: they are too big or too small. On one hand, large urban school systems require extensive monitoring systems; on the other hand, small districts can spend more per capita on their superintendent's salary (without fringe benefits) than on their textbooks and library books combined.[27]

Future educational finance research will compare the costs and benefits of scale economies against more streamlined technical networks. Will advanced communications technologies aid in streamlining levels of management through desk access to centralized database management systems, electronic mail and networks, interactive video, telecommunications? If these technologies truly lower the cost of information processing and report generation, they will reduce the need for complex multi-tiered layers of administration. By reducing the labor intensity of regulatory systems, new technologies could free up resources to be invested in reform.

Bureaucracies, with their rules and regulations are designed to handle large numbers of people with some degree of fairness. Unfortunately, they are often not terribly efficient systems because, like most structures and products designed for mass consumption, they can only broadly approximate customer or client demand. School sites, on the other hand, often go beyond the mandates of the state bureaucracy to more closely match student needs and school resources. Schools in the future will build their community credibility by demonstrating their individualized responsiveness and flexibility at the site level.

Schools which are known for their bureaucratic rigidity will have difficulty maintaining credibility with parents and taxpayers.[28] For example, a student in a wealthy suburban district, under extraordinary tragic conditions, was unable to submit a form required for admission to the honor society by the designated date. The faculty voted to deny her admittance because "rules were rules." Almost every parent in the district could afford to send his children to expensive private day schools that took pride in their flexibility and ability to make each family feel special. The superintendent lived in fear that the bureaucratic inhumanity of the faculty would be leaked to the community, triggering an outflow of students to the private sector.

School districts which attempt to be responsive to their respective communities may find those efforts unintentionally hampered by the increasing regulatory constraints of current reform efforts. While these structures allow external funds to flow into districts, they impose relatively rigid monitoring and compliance costs. The move toward increased centralized regulation comes at the very time that school districts need to increase their flexibility and responsiveness to maintain their community credibility.[29]

Every dollar that is spent in monitoring distributive compliance is a dollar not spent on direct services to students. What good will more "equitable" state funding formulas do if increasingly large shares of resources are frozen in regulatory costs?[30] If state legislatures mandate specific requirements for all students, what real costs are imposed on the successful, community responsive operation of school sites?

How can the education profession hope to attract competent building-level professionals when external groups define their discretionary resources out of existence? Many building-level principals have no more than a few thousand dollars out of the entire site budget that are not encumbered by the first day of school. Current state centered reform efforts continue to attenuate the professional choices of teachers and administrators and constrain their ability to design high-quality delivery systems for their students and communities. Is this a democracy run amok, where taxpayers and public policy makers believe that they have the right to rush in and regulate professionals where capitalistic stockholders would fear to tread?

If centralized, bureaucratic decision making continues to flourish, then in the future, new technologies could become perverted. Under these conditions a value for high-quality professional delivery systems could be replaced by a value for regulation. Computer networks could serve as the wicked queen's mirror in *Snow White*, being used to monitor legislative directives and school dwarfs. The state could also generate a cost-effective standardized "teacherproof" curriculum which could deprofessionalize teaching by deskilling job requirements and lowering costs.[31] As a further cost-cutting measure the state then could set common salary scales for this new breed of civil servants. This type of structure would reduce both labor and bargaining costs by more closely coupling legislative directives with student outcomes.

This type of directive, hierarchical organizational design, developed around the turn of the century for a homogeneous mass production environment is the currently prevalent organizational structure of a large sector of the American workforce.[32] It assumes that production occurs almost independently of customer interaction; one sets standards and rules to be uniformly applied to the product and consequently the customer. In mass production industries, standards are set by management and executed by those on assembly lines. It is also a model used by public lawmakers who set rules and charge civil servants with their uniform application. In both sectors, independent professional judgment which meets client requirements leads to exceptions to those rules. Under this model exceptions are not valued; thus independent judgment can be considered an impediment to productivity.

If, however, education is a process which requires highly skilled professional judgment to interact productively with unique individuals, the hierarchical bureaucratic structures that are appropriate for mass production and control are singularly inappropriate for schools. The industrial monitoring costs that ensure the manufactured widgets conform exactly to standards can be very high. The legislative monitoring costs that ensure all drivers conform to speeds of less than 55 miles an hour can be very high. The professional training costs that ensure a doctor confirms a proper diagnosis can also be very high.

Should educational policy makers invest in bureaucracies which monitor rules and pay their employees relatively low wages to carry out those rules? Then, education employees become civil-servant assembly-line workers who act as vessels for the decisions of others. Or should they invest in highly skilled professionals who exert relatively independent judgment and require minimal monitoring? In the former case, administrative overhead costs are very high because those that have the decision-making skills are at the top of the hierarchy directing the lower-skilled jobs below. In the latter case administrative overhead is lower because those that have the decision-making skills provide services to clients and customers either directly or with a relatively small staff.

Under the latter conditions professional discretion has a powerful impact on the educational process; that discretion requires resources. In this type of organization the most highly valued skill resides in the individual professional's judgment. Organizational structure exists primarily to support that judgment, not to regulate it. It is the building-level professional who decides the appropriate allocation of resources for the student, not the public consumers' representatives in the form of legislators. No state legislator would have the audacity to direct surgery through legislative or judicial intervention; nor under this model would they direct pedagogy.

In the past, education was patterned after corporate mass production models of organization. The problems of cost-effective organizational structures are exceedingly complex. Future research is required to assess more carefully the claim that decentralized, site-based, client-centered professional models may provide more appropriate, cost-effective delivery systems than the current centralized, off-site, allocator-centered bureaucratic models. While professional models are enticing, problems of scale, indirect client payments and other issues require further clarification.

Caution, however, must be noted before any wholesale adoption of an externally generated model or its modification. Schools have unique charges. Students are not patients, they are not sick, and consequently diagnostic-prescription models carry with them tacit pejorative and political overtones which limit student choice. These models were used extensively in the 1960s and 1970s to "identify" and "treat" students who were "disadvantaged." These kinds of models impose unnecessary political and social costs on students. A market-based service sector model provides a less pejorative alternative in which parents and students chose what they believe to be the most appropriate educational delivery system within the guidelines of the law. The assumption of negotiated partnership and choice is stronger in this model, although both medical and pedagogical models rely on the weight of perceived expertise.

How cost-effective are these alternative forms of delivery systems? Traditional methods of using accounting costs are not useful in measuring economic costs which can be observed only indirectly, but nonetheless, produce real effects over the longer term. These include political, psychological and social costs. Future research should examine new ways of including economic costs in formal financial policy processes. Reform legislation could be required to file economic impact statements. Budgeting and accounting systems could formally include economic costs.

Taxpayers, confusing form and function, may believe that greater privatization of educational bureaucracies will free up large amounts of social discretionary resources which could be transferred to more efficient investment in economic development. This would be unfortunate if research indicated that education inefficiencies lay in the organizational structure of its *delivery* system and not necessarily in its "publicness."

The key words of public survival in the 1990s could become flexibility, credibility and affordability. School districts, state and federal legislatures and bureaucracies will be called on increasingly to prove their credibility to taxpayers who want to see more productive returns on their public investments. One way of maintaining that credibility may be found in the streamlining of monitoring and compliance costs through decentralized, client centered delivery systems.

Implications for Policy

Structural change will require a refocusing of policy arenas. More cooperative strategies will be required to reduce inefficiencies between political and economic markets. Financial policy makers can focus on the interrelationships created by schools, regional tax bases and economic development. States which have a reasonable correspondence between political and economic boundaries may find such efforts lead to greater competitive responsiveness. State legislatures also may want to ask what effects regional structural changes have on schools. What effects do schools have on regional development?

National policy makers will want to attend more carefully to regional development efforts because federal allocative decisions create *de facto* a national development policy. School funding levels have, over time, contributed to an implicit "industrial policy." Researchers in the future may want to make those connections more explicit, particularly on a regional basis.

It is difficult to imagine a region in the future that would not be concerned about its competitive position in attracting, maintaining and generating quality labor capital. Development requires human capital investment that leads to increases in the value of people's time.[33] Schools help form the human capital that will become the base of our future economy. They are a central concern in the development of future tax bases. Flexibility and responsiveness are key concepts in regional cooperation for global competition. Within this process, credibility and affordability are central issues for school districts.

If school professionals successfully meet these challenges, they could emerge from this period of economic transition in major leadership roles in a post-industrial, service-based economy, despite the shifting demographics. Districts have an established community commitment because of their relative immobility and vulnerability. Hence, they are more likely to be trusted than their more mobile private sector counterparts. Second, their ubiquitous nature offers common ground for community discussion. Almost everyone has school experience. This gives school business administrators credibility that business and church leaders would have more difficulty establishing. Third, schools are only indirectly concerned with regional development, and their reflective distance may make them more credible leaders than those with more direct personal investments. Few district personnel see themselves as existing solely to train future workers for local employers.

Fourth, unlike their counterparts in corporations, many school business administrators have substantial experience working under the worst managerial conditions: complex competing goals, grossly insufficient discretionary resources, high public visibility and crushing political vulnerability. Effective managers under these conditions have developed skills appropriate for management in a political economy. Regional political and economic partnerships that share the competitive skills of the private sector with the cooperative skills of the public sector might produce a healthy future tax base.

These cooperative policy efforts might fund research in alternative financing policies for schools. For example, how have the monitoring and compliance costs of current centralized reform efforts affected the costs and quality of building-level operations? Are public schools unable to compete effectively with private schools because of this regulatory burden? Growing claims of private schools effectiveness must not be overlooked in the search for effective school finance policies.[14]

Could greater diversity in school organizational structures lead to more equal opportunity for students? Are there gains from alternative forms of specialization that could directly benefit students? In a service economy that specializes in individualized treatment of its customers, can educational systems lead the way and still retain their "publicness"?

The future educational system and the tax base that supports it will be shaped in many ways. The investments made in our children will return to us in our old age. Will they be able to support themselves, their own children and their parents as well? Will schools encourage a resurgence of creative reorganization which will lead to a healthy future tax base? Explicitly or implicitly our present choices will mold our children's financial future.

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